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Ol. Anthemidi  
Ang.

Ol. Aurantii Dulc.

Ol. Aurantii  
Amara

Ol. Bergamot. Se-  
lecta

Ol. Cajuputi

Ol. Carui Ang.

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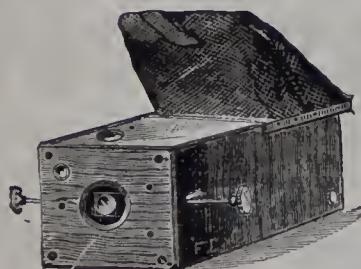


Fig. 13.

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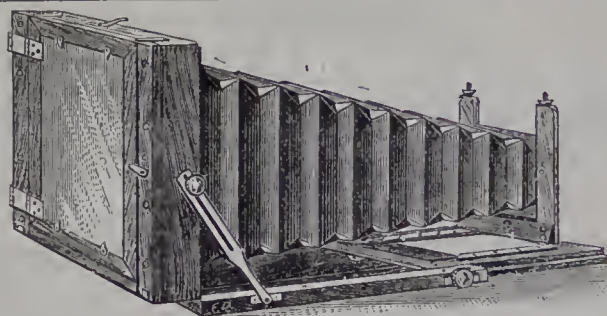


Fig. 14.

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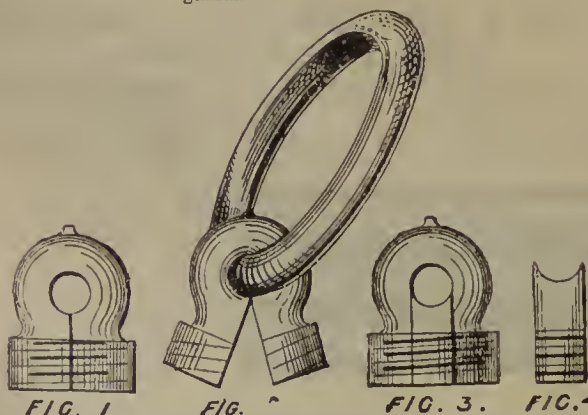


FIG. 1. FIG. 2. FIG. 3. FIG. 4.

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**VALUABLE** Toilet Articles (Registered), having excellent testimonials from Society celebrities, to be disposed of, owing to owner retiring. Address, "Trustee," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

## APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**APPRENTICE** required in good-class Dispensing and Light Retail business; liberal terms to gentlemanly youth; easy hours, with time for study and recreation. W. B. Britton, Chemist, Bridge House, Barnstaple.

**DENTISTRY.**—Wanted, a well-educated, gentlemanly youth as Pupil; one who is capable of passing the Preliminary examination within twelve months; no premium required. Apply immediately, A. Cocker, L.D.S., Sowerby Bridge, Yorks.

**APPRENTICE.**—Required, in a good-class Retail and Dispensing business, a well-educated youth as Apprentice; comfortable home and every facility for acquiring a good practical knowledge; time and assistance in studies; must have passed Preliminary or equivalent. Apply, N. G. Beck, Chemist, Burgess Hill, Sussex.

## SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

**IMPROVER** or Junior (outdoors) in a good-class pushing business. Carte and usual particulars to G. S. Simpkins, 75 High Street, Stourbridge.

**WANTED**, at once, for West Australia, Dispenser and Salesman; salary £120 per annum. Address, W. J. B., Messrs. Street, 30 Cornhill, E.C.



**ASSISTANT**, energetic, reliable man, capable of taking entire charge of branch; single, and not over 30. Full particulars to Jennings, Chemist, Maidstone.

**JUNIOR Assistant or Improver** (outdoors), immediately; another assistant kept. State age, height, salary, and references, to Henry Bell, 47 Crown Street, Halifax.

**WANTED**, immediately, an active Junior Assistant; a qualified one preferred. Apply, stating salary, &c., to J. Llewellyn, Pharmaceutical Chemist, Cowbridge, S. Wales.

**JUNIOR Assistant wanted**; must be a good Dispenser, and accustomed to a Mixed trade. Apply, stating age and salary required, to H. Bailes, Chemist, East Hartlepool.

**DRUGGISTS' SUNDRIES**.—Wanted, a quick, active young man, about 18 years of age, with good experience in Druggists' Sundries trade. Apply to 30 St. Mary Axe, E.C.

**WANTED**, Manager for Branch; married; qualified; must know Yorkshire trade; highest references required; good salary given. Address, A., Messrs. J. Woolley, Sons & Co., Manchester.

**TO Dispensers**.—Wanted at once, a qualified man; outdoors; short hours; no Sunday duty. Apply by letter, stating age, experience and salary required, to H. W. J., 136 Queen Victoria Street, E.C.

**WANTED**, an active Assistant, for a good General country trade; one with knowledge of photography and the seed trade preferred. Address, stating salary required, &c., to E. Booth, Chemist, Crewe.

**WANTED**, an energetic and obliging Junior Assistant, aged about 21, for good-class trade; undeniable references required. Apply, stating age, height, salary required, and when disengaged, J. B., 100 Rann Street, Birmingham.

**ASSISTANT** for small Chemist's Retail and Dispensing wanted; one accustomed to Stationery and Mixed business; indoors; aged 20 to 21. State salary wanted, and particulars, to Y. Llewellyn, Dispensing Chemist, The Triangle, Clevedon.

**WANTED**, Assistant for a Wholesale Drug and Drysaltery Business, to live in, who thoroughly understands the business; one preferred willing to travel 3 days a week; not under 30 years. B. B. Cowgill, Wholesale Chemist, Sowerby Bridge.

**SOLE Agent** wanted for England and the Colonies for the Sale of a Chemical Product (speciality) awarded in 1890 by six exhibitions; indispensable in all climates; no concurrence. About particulars, apply to Edward Gerlach, Lnebbek, in Westphalia, Germany.

**WANTED**, a good sharp youth as Turnover or Improver, for Mixed Country business; must be steady and trustworthy; member of Christian Church preferred; ample time given for reading. Apply, with age, salary required, to J. H. Downing, Southwell, Notts.

**S.W.**—Wanted, a qualified Junior for Light Retail and Dispensing Business; one afternoon and evening in the week, and Sunday off. Apply, first by letter, stating full particulars and salary required, to C. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, an Agent for Great Britain, especially for Ireland, for the sale of Danish Butter-colour, Cheese-colour, and Rennet; also an Agent for Australia and New Zealand for the same purpose. Apply, with references, to Messrs. Jensen & Langebek, Petersen's Laboratories, Copenhagen, Denmark.

**THE Proprietors** of a genuine Patent Medicine offer a commission of 7½ per cent. to respectable men calling upon Chemists and Patent-medicine Vendors; one of the best selling things of the day; references required. Address, K. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**WANTED**, a qualified man to take entire charge of a Chemist's busy Retail in a low-class neighbourhood, London; short hours; lock-up, shop; no Sunday duty; a good and progressive salary to an active and competent man who can give good reference. Address, "Fair Play," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**DISPENSER** to the Chelsea, Brompton, and Belgrave Dispensary, Sloane Square, S.W.; salary £1 10s. per week; hours 9 to 5. Candidates, who must be duly qualified, to send a written application, with references and certificate of registration, to me, on or before Wednesday, 15th inst. By order of the committee, Stafford Cox, Secretary.

**WANTED** for Branch establishment an energetic Assistant; one used to good Counter trade; easy hours and no Sunday business; one seeking a permanency preferred. Apply, with full particulars, enclosing carte, to Niles & Son, Pharmaceutical Chemists, 9 Hall Quay, Great Yarmouth. Also vacancies for indoor and outdoor Apprentice. For terms apply as above.

**WANTED**, an Assistant for Japan; unmarried; engagement for five years; must be a thorough good business man, have the Minor qualification, speak French fluently, and be able to attend to books; board and lodging provided, and second-class passage out in one of the P. and O. steamers; unexceptionable references are required. For further particulars, apply to S. Maw, Son & Thompson, 7 to 12 Aldersgate Street, London.

**WANTED**, qualified Chemist's Assistant (single) for India. Apply by letter to J. N., care of Maw, Son & Thompson, Aldersgate Street.

**ASSISTANT**, with good experience, for good-class mixed Retail and Dispensing business. State full particulars to C. B. Shaker, Plymouth.

**AN Assistant**, about 24 years of age, to fill a responsible position; Minor preferred. Apply, stating usual particulars, J. Burton, Chemist, Llandudno.

**WANTED**, a smart Junior, of good address, and with knowledge of Prescribing. Apply, with usual particulars, and photo if not personally, to A. Bevan, 128 Ball's Pond Road, N.

**WANTED**, a smart Junior, about 18, outdoors; must be obliging to customers, and a fair Counterman. State salary required, and all particulars, Lewis, Chemist, Preston, Lancashire.

**ASSISTANT** in good-class Dispensing and Retail; hours easy; Apprentice and Porter kept; to a good man seeking a permanency this situation is desirable. F. W. Doubleday, Dorking, Surrey.

**IMMEDIATELY**, an Assistant, not under 22, accustomed to Dispensing and good-class Retail. Full particulars, including salary required, also photo if convenient, to B. John, Chemist, Clifton, Bristol.

**BRANCH Manager**, good Prescriber, Extractor, with knowledge of Dentistry. State age, qualification, salary required, references, live on premises, to "Eduicene," 15 Laurence Pountney Lane, London, E.C.

**JUNIOR or Improver** for Counter; must be quick and energetic; salary and commission; hours 8 to 8; no night or Sunday duty. Apply to "Chemist," Harrod's Stores (Limited), 101 to 105 Brompton Road, S.W.

**G. T. BOTTERILL**, Pharmaceutical Chemist, Grimsby, requires an Indoor Assistant for good-class Retail, Prescribing and Dispensing business; state age, height, salary, references, and enclose carte (to be returned).

**A JUNIOR Assistant** for a Light Retail and Dispensing Business, one able to take charge occasionally; abstainer preferred; short hours; indoors (sleep out, 100m found). State particulars and enclose C.D.V. to W. Carveth, 7 King Street, Plymouth.

**WANTED**, an Assistant, one desiring a permanency preferred, capable of taking charge of a Mixed business. Apply, stating salary (Indoors), references, and enclose photo if convenient, which will be returned, to J. Day, Chemist, Savile Town, Dewsbury.

**ASSISTANT** wanted (single, indoors) in a Light Retail business; able to manage in absence of principal if required; aged 25 to 30; accustomed to Prescribing; good reference indispensable. Apply, after 3 p.m., to J. E. Harris, 60 Exmouth Street, Farringdon Road, W.C.

**A COMFORTABLE** home and £52 per annum are offered to an Assistant (Minor qualification) of good business habits. Applicants will please state age and references, also enclose carte (which shall be faithfully returned), to W. H. Solomon, Chemist, 40 Market Street, Falmouth.

**AT once**, an Assistant to take charge of a Chemist's business; one who has sufficient cash to purchase it in a month or so; it is situated in a very busy thoroughfare in a large and prosperous seaport town, and returns £550 under management. Apply to Q. E. D., 16 Queen Street, Cardiff.

**ASSISTANT** (outdoors), Minor qualification, good Dispenser and Salesman; looth-extractor preferred; comfortable permanency; two kept; hours 8 to 8; one evening off weekly. Full particulars, giving references, stating salary required, when disengaged, and enclosing photo (to be returned), Cowan, Chemist, Star Hill, Rochester.

## SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

**LOCUM TENENS**; disengaged; London or country. H., 28 Ampton Street, W.C.

**ASSISTANT or Manager** in good-class business; outdoors. Newton, 20 High Street, Rhyl.

**AS Assistant**; Prescriber and Dispenser; aged 25. F. B., Birks Farm, Gillington, Bradford.

**EVENING Engagement**; qualified; 24; engaged in City during day. F. G., 41 Trinity Square, S.E.

**JUNIOR or Improver**; London preferred; 19; 5 years' experience. Yates, Hartshill, Stoke-on-Trent.

**LOCUM-TENENS or Manager**; 45; qualified; disengaged about 18th. Williams, 70 Leabury Road, W.

**AS MANAGER**; competent; qualified; general knowledge; good Prescriber; married; abstainer; well recommended; disengaged. "Beta," 16 Hampstead Road, N.W.



**JUNIOR**, 19; 6 years' varied experience. Siegel, 32 Richmond Street, Southampton.

**ASSISTANT**; 28; disengaged; good Counterman, Prescriber, &c. E. T., 335 Moseley Road, Birmingham.

**ASSISTANT**; aged 24; married; disengaged. "Chemists," 17 Ramsgate Terrace, Wintown Street, Leeds.

**JUNIOR**; outdoors; good references; aged 20; disengaged. H., The Lodge, Chaddesty, Kidderminster.

**AS** Junior; aged 21; outdoors; London; good references and experience. Hill, 7 Jelf Road, Brixton, S.E.

**LOCUM** (qualified); Prescriber and Tooth Extractor. Address, "Minor," 30 Rutland Street, Hampstead Road, N.W.

**JUNIOR** wants situation in London; outdoors; excellent references; 5½ years' experience. Waters, 12 Dalberg Road, Brighton.

**LOCUM-TENENS**; 3 days a week disengaged; qualified; 18 years' experience; good references. "Rhenm," 2 Agate Road, W.

**JUNIOR** in good Dispensing business; South or West preferred; 5 years' experience; aged 21. Wilson, North Street, Bishop Stortford.

**ASSISTANT** (26) in English French Pharmacy; first class reference; speaks English a little. Vincent, 26 Guilford Street, Russell Square.

**AS** Manager or Locum-tenens; Prescriber, Dispenser, and Extract; aged 41; disengaged. "Cascara," 61 Church Street, Shirley, Hants.

**WHOLESALE**.—Wet Counter, in London; highest references. 199, 22, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**TRAVELLER** for first-class Drug House; good references. Apply, stating salary and expenses, to W. Chemists, 3 Queen Street, Neath.

**MANAGER** or Senior; Minor; 30; good reference; Midlands preferred. T. M. Chesterfield, Eastgate, Deeping St. James, Market Deeping.

**WHOLESALE**; 10 years' experience with City firm; Dry, Wet, Export Counters; highest references. H., 104 Sandmere Road, Clapham.

**WHOLESALE** or Export; Wet or Dry Counter; good experience and references. Address, "Medicus," Polytechnic, 309 Regent Street, W.

**JUNIOR**; aged 20; 5 ft. 7 in.; 6½ years in town and country; abstainer; disengaged November 1st. H. Jones, 5 Market Terrace, Wood Green, N.

**LONDON** or Manchester.—Junior; 8 years' good-class Retail and Dispensing experience; excellent testimonials. Scott, Queen Street, Horncastle.

**AS** Manager of Branch, or as Assistant with view to succession or partnership in good business. "Minor," care of Mr. Smith, Chemist, Nailsworth, Stroud.

**AN** Assistant, with good general knowledge of the trade; 19 years' experience; aged 36; height 5 ft. 10 in.; 10 years in last situation. "Dens," 445 Oxford Road, Reading.

**ASSISTANT** or Dispenser to Surgeon; outdoors preferred; good Prescriber, quick Dispenser, and Extractor. "Medicus," 1 Fern Villa, Oldbury Road Corner, Worcester.

**WEST OF ENGLAND**.—Advertiser, resident in Plymouth, seeks engagement as Agent or Traveller for a good firm; good references. "Borax," 33 William Street, Morice Town.

**LOCUM-TENENS** or temporary Manager; country preferred; qualified, competent, steady and reliable; highest references. "Extractor," 86 Florence Road, London, S.E.

**WHOLESALE**.—Wanted, situation as Manager or Leading Invoice Clerk; first-class experience in both branches; good references. Apply, "Alpha," 46 Brighton Road, Stoke Newington, N.

**TEMPORARY**; by married gentleman (M. & A. H. O.) of West-end and provincial experience. Gentlemen requiring competent and trustworthy assistance should communicate with "Iota," 25 Tolmers Square, N.W.

**ASSISTANT**, with 13 years' experience of the trade in general, is open to an engagement; engaged at present, but want to get in or near Liverpool; character will bear strictest investigation. Address, A., 129 High Street, Guildford.

**CHEMISTRY** and Horticulture.—A Gentleman (38) with a practical knowledge of the above, combined with business experience and the control of men, seeks a post in England or abroad, where his services would meet with a fair remuneration. E., Ford House, Exeter.

**LOCUM-TENENS**; experienced; abstainer; references. "Veritas," 10 Bond Street, Higher Broughton, Manchester.

**JUNIOR**; 19; height 5 ft. 10 in.; good experience and references. Apply, "Chemists," 40 Church Road, Northwich.

**ASSISTANT** (Indoors); accustomed to good-class business. Full particulars, with carte, to John Bates, Chemist, Bicester.

**PART** Time; early in November; easy distance from Muter's; good experience. F. Blomfield, 19 Market Place, Great Yarmouth.

**ASSISTANT**; good Dispenser; first-class London experience; outdoors; aged 24; disengaged. C., 124 Priory Park Terrace, Kilburn.

**WHOLESALE**.—A situation as Warehouseman; first-class reference. Address, H. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**ASSISTANT** or Traveller, or either; aged 30; last situation 7½ years; good references. W. Flight, Brinscombe, Stroud, Gloucestershire.

**ASSISTANT** or manager; aged 26; Minor; speaking German fluently; good photographic knowledge; extract. "Chemist," 2 Carr Lane, Hull.

**AS** Junior or Dispenser to Surgeon, in London or Liverpool; time for study; aged 21; 5 years' experience. "Beta," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

**RE-ENGAGEMENT**; thorough knowledge of Patents, Herbs, Perumes, and Window-dressing; London and provincial experience; aged 27; height 5 ft. 9 in. W. J. R., 27 Lower Talbot Street, Nottingham.

## MISCELLANEOUS.

*Special charges are made for Advertisements under this heading which can be obtained on application.*

**TO** Chemists who publish a List or Almanack.—Send particulars for Advertisements to Thomas Hall, 24 Queen Victoria Street, London.

## PRELIMINARY AND MINOR.

**ALL** Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hill's prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

## STUDENTS' AIDS TO EXAMINATION.

**PRELIMINARY**.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. **MINOR**.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

## ELIZABETH HUGHES, DECEASED.

**PURSUANT** to Statute 22 and 23 Vic., chap. 35, Notice is Hereby Given that all persons having any claim against the estate of Elizabeth Hughes, late of High Street, Presteign, Radnorshire, Chemist and Druggist (who died on the 14th February, 1890, and whose Will was proved in the Hereford Probate Registry on the 23rd June, 1893, by William Wakelin and John Davis, the executors therein named), are required to send particulars of their claims to the undersigned on or before the 8th November, 1890, after which date the Executors will distribute the assets of the said Deceased, having regard only to the claims of which notice shall have been received.

Dated this 18th September, 1890.

WILLIAM WAKELIN, Presteign, Radnorshire,  
Solicitor for the said Executors.

## WILLIAM HUGHES, DECEASED.

**PURSUANT** to Statute 22 and 23 Vic., chap. 35, Notice is Hereby Given that all persons having any claim against the estate of William Hughes, late of High Street, Presteign, Radnorshire, Chemist and Druggist (who died on the 25th October, 1888, and Letters of Administration, with the Will annexed, of whose personal estate were granted by the Hereford Probate Registry on the 7th July, 1890, to William Wakelin and John Davies, the executors of Elizabeth Hughes, deceased, the sole executrix named in the said Will), are requested to send particulars of their claims to the undersigned on or before the 8th November, 1890, after which date the Administrators will distribute the assets of the said William Hughes, deceased, having regard only to the claims of which notice shall have been received.

Dated this 18th September, 1890.

WILLIAM WAKELIN, Presteign, Radnorshire,  
Solicitor for the said Administrators.



# SACHET POWDERS.

**S**WEET LAVENDER, Pot-pourri Jars, and Cedar Chests have long been popular for their sweet odors. The liking for a dainty and refined Perfume about one's belongings is universal. Many devices have been resorted to with fragrant materials in order to obtain the soft and evenly-distributed perfume that is so desirable. The most satisfactory method seems to be the use of Powdered Perfumes.

They are delicate and pleasing, and their lasting qualities seem to be far superior to the liquid perfumes. The inner lining of dresses may be sprinkled with the Powder, and the faint hint of fragrance will last as long as the garment.

Quilted pads filled with these Perfumes, made to fit the bottoms of trunk trays or glove boxes, are much liked by those who have tried them. Handkerchief boxes lined with these fragrant Powders will perfume the handkerchiefs more delightfully than many perfumes made for the purpose. In fact, the uses to which these Perfumes may be put are as various as individual taste and preference may dictate.

How many odors is it advisable to make? Not over a dozen. Why?

Because the range of material is limited, and a few well-combined odors will meet the public demand much better than a long list, many of which are but reproductions of the same odor. Druggists should carry not less than six odors, in 8-oz. or 16-oz. glass-stoppered bottles, for supplying those who do fancy-work and others wanting them in bulk. Then a few dozen packets in satin, lettered in gilt, for placing in trunks, boxes, etc. The six odors most popular are White Rose, Jockey Club, Violet, New Mown Hay, Heliotrope, and Frangipanni.

*SATIN PACKETS, Lettered in Gilt ... .. 1.75 dollar per dozen.*

The following are put up in glass-stoppered bottles.—One ounce, in 2-ounce bottle, 4 dollars per dozen. Quarter pound, in 8-oz. bottle, 12 dollars per doz. Half pound, in 16-oz. bottle, 24 dollars r doz.

Catalogue and Supplement sent on application.

**C. A. MANN & CO.**  
**48 MURRAY STREET, NEW YORK, U.S.A.**



Facsimile of the  $\frac{1}{4}$ -lb. Size.



# EXCHANGE COLUMN.

This Section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

## TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to 'The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.,' and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

**DEPOSIT OF MONEY.**—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6d. if the amount is £3 or under; and 1s. if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin & Co."

## FOR DISPOSAL.

### Literature.

*Pharmaceutical Journal*, what offers? posted Saturday. Annie Canuoli, Queen Square, Wolverhampton.

### Proprietary Articles.

Quantity of patent and homoeopathic medicines, Crawshaw's dyes, &c., cheap. 201/26.  
What offers for 3 2-gall., 2 1-gall. tins King's patent carbolic dressing for seed corn? Wellington, Oakham.

### Drugs and Chemicals.

Surplus opium, best Turkey, 12s. 6d. lb.  
"Chemist," 27 Ermine St., Huntingdon.  
Poppy-heads, to clear, large 12s. 6d., medium 6s., small 2s. 6d. per 1,000, bag 6d. Connor, Doncaster.

### Formulae.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list.  
"Chemist," Edwards, Wye, Kent.  
Brooks's reliable recipes, after many years, still stand first. "Glycerine Cream," perfection of winter requisites; elegant, not sticky, delicately perfumed; cures chaps, roughness, redness, &c., rendering the skin like velvet (sale at Hornsey last year trebled itself). "Balm of Glycerine and Liquorice," splendid all-round cough cure; nice taste, elegant look, perfectly safe for children or adults; capital for retailing by oz.; 2-oz. bottles cost 2s. 6d. doz. "Sweet Memories," latest pungeat, exhilarating, exquisite bouquet, much admired, sells well; list of 400 others free; recipes 7d. each, three for 1s. 6d., with directions free. Latest addition—special—"Sweet Solid Perfume," 2d. blocks, nothing like them in market, pronounced far and away best; sale increases weekly; recipe and sample dozen, free, 3s. 6d. If you doubt genuineness send postal order, or 1s. stamps, for sample of above four; post free in England. Tom Brooks, Chemist, Hornsey, London, N.

### Shop Fittings.

Wall-case, 9 ft. long, 9 ft. high, with four sliding doors below, and glass case in centre above, splendid condition, 4l.; also 6 ft. open counter with shelf, 1l. Apply, Johnstone, Chemist, Byker, Newcastle-on-Tyne.  
Shop-rounads, set of 12 dozen, best quality, painted bottoms, gold labelled, quite new, from 10 oz. to 40 oz., including 1 doz. blue syrups, for 5l.; separate sizes to order, equally cheap. Natali & Co., 184 Aldersgate Street, London.

Mahogany case and desk, 2 ft. 9 in. long, 1 ft. 10 in. deep, as Maw A32, price 45s. Gant, Raunds, Thrapston.

Drawers.—12-foot run of solid mahogany-fronted drawers, with bevelled-edge glass labels and glass knobs, locker under same, and shelving on top, with cornice, a very handsome fitting, price 15l. 10s.; also a 9-foot one to match, with mirror, cupboard in centre, price 14l. 10s. Phillip Josephs, 54 Old Street, Goswell Road, London, E.C.

Counters.—2 solid mahogany, and plate-glass fronts, one 12 ft. long, the other 11 ft. 6 in.; price 12l. 10s. each; also 2 panelled front counters. Phillip Josephs, 54 Old Street, Goswell Road, E.C.

Dispensing-screen, very handsome, 7 ft. long, with circular sponge-case and glass-fronted counter under, price 20l.; also 2 others very cheap. Philip Josephs, 54 Old Street, Goswell Road, London.

Toothbrush-case, as Maw's A10, price 60s.; wall-case, very similar to A86, price 10l. 10s.; 5-ft. bent counter-oase, as A18, price 95s.; also other fittings, great bargains. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Great bargains in counters, counter-cases (all sizes), wall-cases, dispensing-screen with mirror centres and cases at each, with tablet over "Dispensing Department"; several others as Maw's A54 and 55, from 4 ft. to 7 ft. 6 in. cheap; wall fixtures, drawers, lockers, shelving, cornice, &c.; 4 ft. to 20 ft. run ditto, with silver-glass polson-cupboards over; pink and blue ointment-jars, specie-jars, pill-machines, mortars, &c., &c., at low prices; sketches and particulars, forwarded on receipt of business-card. Elkanah Natali, 207 Old Street (Shoreditch End), London, E.C. (no connection with any other business of same name).

10 3-lb. new maroon jars, dome covers, gilt moulding, labelled, inside linings, 12 8-oz. ditto, ditto, ditto, 3l. 17s. 6d.; 1 specie-jar, 31 in. high, with gilt glass cover, scroll label, 1l. 15s.; 1 8-gall. globe with 2-in. stand, 17s. 6d.; 11 new specie-jars 12½ in. high, with glass covers, 2s. 10d. each; 17 1-gall. green carboys, large japanned caps, gold labelled; 4 3-quart ditto; 12 Winchester, 1l. 12s.; soda-water stand, marble top, 24 in. x 20 in., 2l. 5s.; a new nest of mahogany-fronted drawers, 4 ft. 9 in. long, 2 ft. 6 in. high, 30 drawers, 2l. 5s.; new plate-glass counter-oase, choicest, 4 ft. x 2 ft. x 9 ft. high, trays, mirrors on flaps, 4l. 10s.; several nests of drawers. W. Hawke & Son, Shop Fitters, Wild Court, Great Wild Street, London, W.C.

## Miscellaneous.

Three cwt. garlic (large, sound) 4d., or offers for lot. Mason, Bromsgrove.

Fine orange shellac, 10d. lb., carriage paid on 7 lbs. Griffiths, Kids Grove, Staffs.

Red lamp (plain) for sale by surgeon leaving neighbourhood, 17s. Apply, Dr. Fox, Bengoe, Hertford.

New run honey 6d. lb.; pure distilled glycerine 6d. per lb., in 56-lb. tins. Johnson, Chemist, Godalming.

Five gross 2d. perfumes, assorted, clean, 12s. 6d.; 6 20-oz. original bottles opoponax, 8 jockey club, 7s. 2d.; sample 3 stamps. 201/30.

Job lots of mineral-water and other bottles; 100 gross split lemons; 50 gross 10-oz. square dark coffee extracts; 30 gross cherry brandy quarts; what offers to clear? 85/61.

Cotton Wool.—Messrs. D. Ormerod & Son, Owl Carr Mill, Dulesgate, Todmorden, being overstocked, will send, carriage paid, 6 1-lb. rolls of the finest bleached or absorbent cotton-wool on receipt of postal order, first quality guaranteed.

Last six years' *Pharmaceutical Journal*, last year's *Chemist and Druggist*, 8-inch porcelain marbled letters forming Chemist, Druggist, iron standards for carboys; sketch sent; offers cash or patent medicines. Hartley, Leek.

## WANTED.

Saleable patents. Birkbeck, Chemist, Lincoln.

Salcable patents, &c., in exchange Howard's quinine sulph. 201/26.

A few 6 to 12 gallon strong clean zinc or galvanised-iron tins or drums suitable for paraffin oil. Percy Carr, Ecclesall Road, Sheffield.

Good formula for perfume, similar Persian essence or wedding bouquet, Sheffield. Sample and price of recipe to Wlton, Chapeltown, Sheffield.

Fittings and outfit of a small chemical laboratory, cheap for cash, or exchange disinfectants. Particulars to "Laboratory," Chas. Tayler & Co.'s advertisement offices, 154 to 157 Fleet Street, E.C.

Paraffin pump, with measuring apparatus, new or second-hand; also 100-gallon cistern; also address of makers of, or dealers in, lamp-glasses. Robinson & Co., Chemists, Church Street, Hunslet, Leeds.

## Address Wanted.

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MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

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AND  
SURGICAL **PLASTERS** IN RUBBER  
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(PERFORATED AND PLAIN), AND ISINGLASS AND MUSTARD PLASTERS.

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We are now preparing Mustard Plasters after an entirely New Process.

Mustard Plasters have always given some trouble to both Physician and Pharmacist, by reason of decomposition from age, thus becoming inert. After years of careful manipulation we have been able to overcome this difficulty, and the Mustard Plasters prepared by us are guaranteed in every way.

ON APPLICATION WE WILL MAIL TO ANY CHEMIST'S ADDRESS A SAMPLE OF OUR

### NEW PROCESS MUSTARD PLASTER,

A comparison of which with any other brand will show them to be much superior.

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THEY WILL GIVE BETTER SATISFACTION TO YOUR CUSTOMERS.

THEY ARE STRONGER THAN ANY OTHER MAKE.

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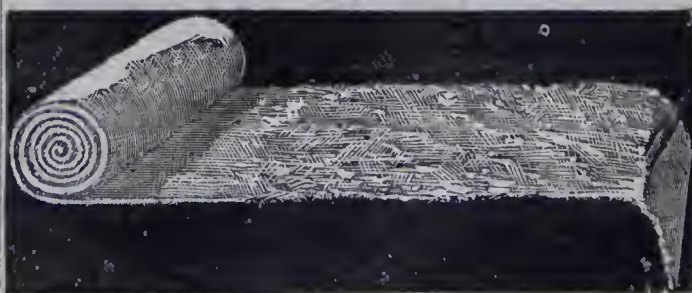
FIRST.—By preparing the mass in a manner calculated to promote a more rapid absorption of the incorporated drug.

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THIRD.—By the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

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Rolled with Tissue Paper between them to prevent felting.



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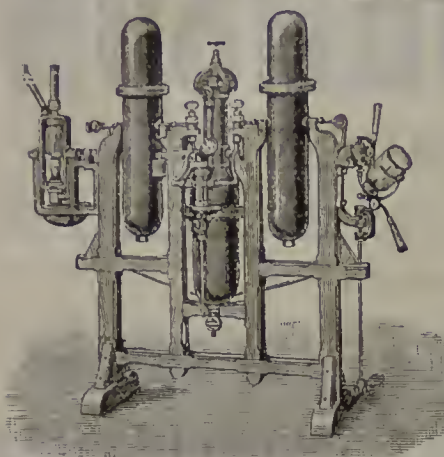
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INDISPENSABLE TO CHEMISTS:  
**THE ONLY PRACTICAL SODA WATER MACHINE.**

Self-working by Chemical Action. No Skilled Labour.

NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.

*Produces the Purest Aërated Water made.*

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

COUNTY LABORATORY, 30 BROWNLOW STREET, LIVERPOOL, October, 1889.  
I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in the ordinary way.  
J. CAMPBELL BROWN, D.Sc.

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GENTLEMEN,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescott Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda; the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours,  
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Messrs. A. LOZÉ, & CO., LIMITED.

Dear Mr. Lozé,—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do.

The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly,  
ROBT. J. GOW, F.O.S.

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ORANGE (suitable for Quinine), GINGER, RAISIN COWSLIP, CHERRY, &c.

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ARE THE  
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HEADS PURE TIN,

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GUARANTEED FREE  
FROM LEAD.

GLASS,

FINEST  
ANNEALED.

**SYPHONS.**

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“We beg to say that we have used your

“Syphons for many years, and are very well

“pleased with them. We have tried other makers

“but always found yours superior. We think your

“Syphons the best of any we have seen.

“We are, yours truly, H. C. BAILDON & SON.”

“Bournemouth.

“We cannot, we think, do better than tell you that of the Syphons

“supplied us by you, and used by us during three successive seasons, we have not

“had one out of order—if we except two with broken tubes; and only one burst

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EIGHT PRIZE MEDALS AWARDED

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Most Delicious Sauce in the World. Bottles, 8d., 1s., and 2s. each

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The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

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One 6d. Tin is equal to 25 eggs. In 1d. Packets; 8d., 1s. 2s. and 5s. Tins.

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Delicious Custards without Eggs. In Boxes, 2s., 6d., and 1s. each

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Delicious Blangmange in a Few Minutes. Boxes, 8d. and 1s. each.

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Makes the Best Ginger-Beer. Packets, 3d. and 6d.

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For Painting Stoves, Grates, Iron, Tin, &amp;c. 8d. and 1s. Bottles

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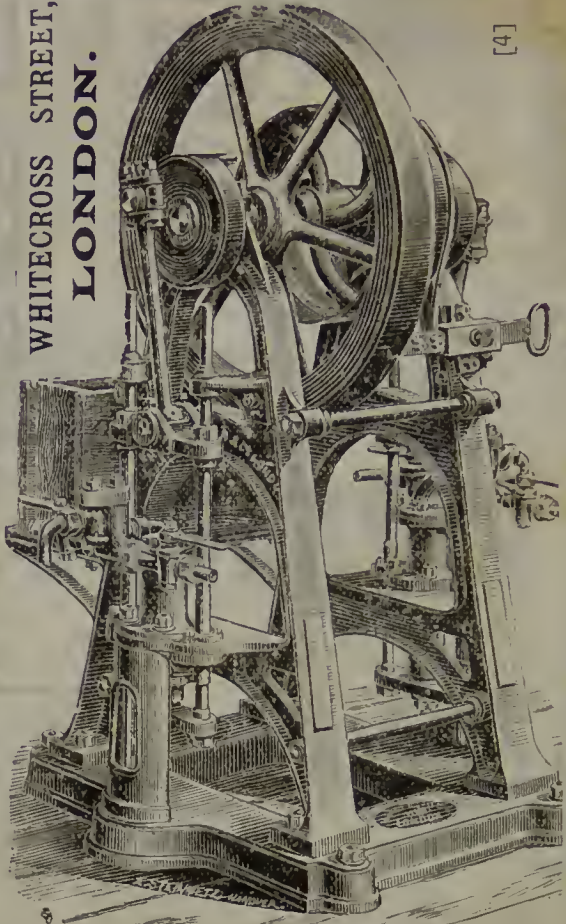
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4 GOLD MEDALS for

WHITECROSS STREET,  
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[4]  
AERATED WATER MACHINERY.

SEE INDEX, PAGES 25-27.

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AN IDEAL FOOD.

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A CONDENSED FOOD

**BOVININE**CONTAINING  
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OF  
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**BOVININE** consists of the juices of lean raw beef obtained by a mechanical process, neither heat nor acid being used in its preparation. The nutritious elements of lean raw beef are thus presented in a concentrated solution, no disintegration or destruction of the albumen having taken place. The proteids in solution amount to twenty per cent. of the weight of the preparation, and give to it the great dietetic value it possesses in all conditions where a concentrated and readily assimilable food is needed.

**BOVININE** is entirely distinct from the numberless meat preparations prepared with heat. It is a Food, pure and simple, Highly Concentrated, and the most Nutritious yet presented.

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"A MOST NOURISHING FLUID, consisting of the UNCOOKED JUICE of meat or muscle plasma, permanently preserved by the addition of a definite quantity of a Carbohydrate."—*British Medical Journal*.

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I have used your Liquor Carnis in some two dozen cases of Dyspepsia, Ulcer of Stomach, Cancer, and Debility, and in cases of obstinate vomiting, &c. I found it to be efficacious as a food, and very beneficial in the cases aforementioned. In the case of obstinate vomiting it was the only thing which checked it and acted as a powerful restorative.

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During the last few months I have prescribed Caffyn's Liquor Carnis in a considerable number of cases.

In one of persistent vomiting with great prostration, almost amounting to collapse, depending on acute obstruction of the bowels, I used it as an enema with the most beneficial results. The temperature rose and the pulse improved. In all wasting diseases it is a most satisfactory remedy.

Its pleasant taste renders it peculiarly well suited to children.

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I have to thank you for the bottle of Caffyn's Liquor Carnis with which you kindly supplied me.

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July 9.

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AGENTS APPOINTED, where unrepresented, throughout the  
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**NON-INTOXICATING BEER**  
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ENLARGEMENT OF SIZE.

A Sixpenny Bottle makes EIGHT GALLONS of  
**HERB OR BOTANIC BEER**

A NON-INTOXICATING BEVERAGE  
Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most  
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Contains 25% of Allen & Hanburys' Extract of Malt.

**A NOVEL CONFECTION. MOST SALEABLE.**

*Delicious Flavour. Brilliant & Attractive Appearance.*

**SELLS AT SIGHT.**

Vide Dr. Tanner's Report, and *The Chemist and Druggist*, April 20th.

1/ Bottles, 9/ per doz.; 1-lb. Bottles, 20/ per doz.; and in 4-lb. Jars, 1/6 per lb.

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER,

**JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.**

## JOHN OWEN, JUNIOR,

PACKING CASE MANUFACTORY AND STEAM SAW MILLS.

ESTABLISHED 1840.

**37 & 38 MINORIES, LONDON, E.C.**

MANUFACTURER OF

Cases of every description for Home use  
and Exportation.

Wine Laths, Oak and Deal.

Mineral Water Bin Cases and Trays.

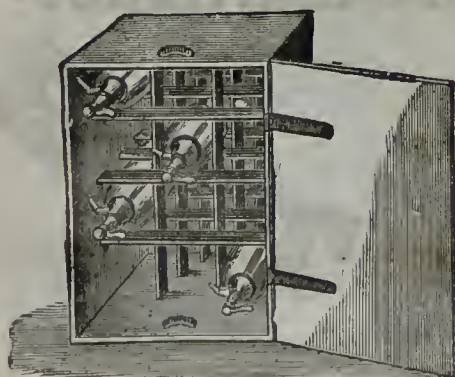
Bottle Crates, Straw Envelopes.

Cases Lined with Tin, Zinc, Copper, &c.;

ALSO MANUFACTURERS OF THE

"Acme" Incubator & Poultry Appliances.

EXPORT ORDERS RECEIVE SPECIAL ATTENTION.



PRICE LISTS FORWARDED ON APPLICATION.



# Clarke's Newly Designed "Pyramid" Nursery Lamp Food Warmer, with New Registered Pannikin.



N.B.—NO ALTERATION IN THE PRICE OF THE OLD PATTERN "PYRAMID" FOOD WARMER.

## CLARKE'S IMPROVED PANNIKINS (REGISTERED) FOR USE WITH CLARKE'S "PYRAMID" NURSERY LAMP.

By this invention any liquid food can be poured out, or drunk, without scum or grease passing (through the spout, and prevents spilling when poured into a Feeding Bottle, so objectionable with all other Pannikins. These Pannikins will fit all the old "Pyramid" Nursery Lamps, and can be purchased separately.

WHOLESALE PRICES { No. 1 ... 30/ per dozen. } Cash discount, 5 per cent.  
LAMPS COMPLETE { " 2 ... 33/ " }  
" 3 ... 36/ "

N.B.—Extras—Porcelain Pannikins per dozen, No. 1 ... 8/ ... Lids ... 2/  
" " " " 2 ... 8/ ... " 2/  
" " " " 3 ... 9/ ... " 3/

Tin Pannikins, No. 1, 8/ ... No. 2, 10/ ... No. 3, 12/

Clear Glasses 4/ ... Roughed, 6/ ... Opaline, 6/ ... Coloured, 6/ ... Ruby, 6/

N.B.—Ask for CLARKE'S PANNIKIN, and see that his name and the registered number (Registered 91,241) is on the Pannikin, and trade mark "PYRAMID."

Clarke's Patent "PYRAMID" NIGHT LIGHTS are the only Lights suitable for these Lamps. Sold Retail by all respectable dealers, and Wholesale by CLARKE'S "PYRAMID" AND "FAIRY" LIGHT COMPANY, LIMITED, CRICKLEWOOD, LONDON, N.W. London Show Room—31 ELY PLACE, HOLBORN CIRCUS, E.C.

## CLARKE'S ADJUSTABLE BED-TRAY (COUSINS' PATENT)

FOR INFANTS AND INVALIDS,  
For use with CLARKE'S "PYRAMID" NURSERY LAMP FOOD WARMER,  
with his NEW REGISTERED PANNIKIN.

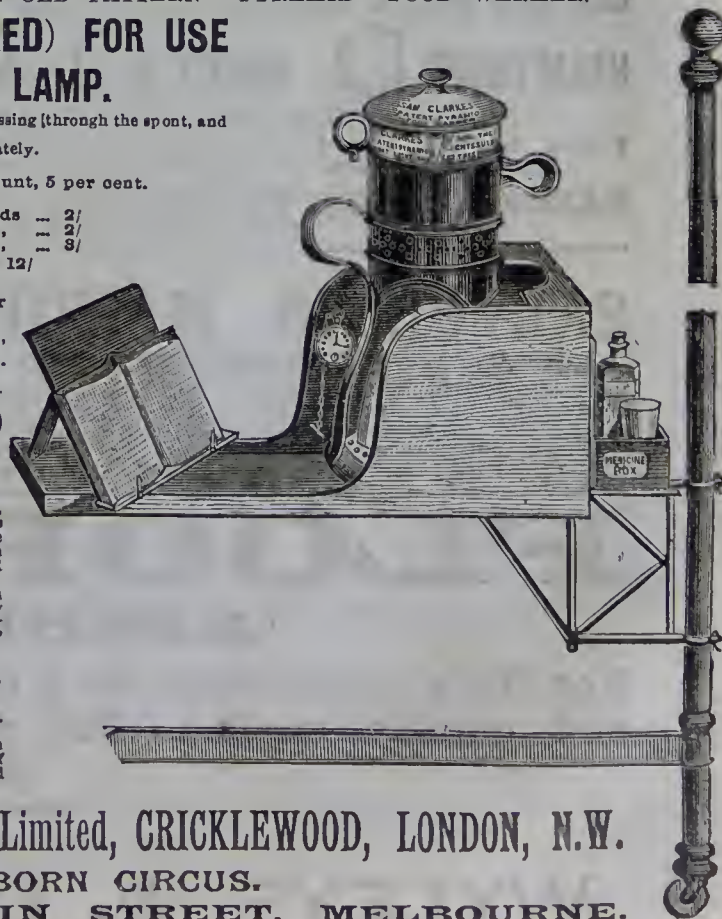
This is an invaluable Invention, and useful appliance at the bedside, suitable for Invalids, and particularly for Parents whose Infants require Feeding during the night. It obviates the necessity of getting out of bed, as everything required for use can be put on the Tray. The Tray is adapted for use in connection with Clarke's "Pyramid" Food Warmer, and when not required can be turned to the wall in such a manner as to Shade the Person in Bed from the Rays of the Light.

Invalids will find it a Great Comfort, for any book, plate, basin, &c., can be placed thereon ready for use, and obtained without altering the position in bed. By means of a slide, the Tray can be pulled forward to the position or length required. It is Highly Recommended by the Medical Profession, and can be obtained from most dealers in Clarke's "Pyramid" and "Fairy" Lamps.

Tray, 15/, with Book Rest & Medicine Box, 21/, less 33½ per cent.  
Food Warmer, see above.

If with Brass Bracket, 4s. extra. Adjustable Brass Support for book rest, 5s. extra.

DIRECTIONS FOR FIXING.—Place the Clips round the bed-post, insert the Thumbcrew in the square hole at the end of same, and screw as tightly as possible. The Clips being of spring steel, they will fit any size post. A little cloth or washleather should be placed round the bed-post to prevent scratching the post.



CLARKE'S "Pyramid" and "Fairy" Light Co., Limited, CRICKLEWOOD, LONDON, N.W.

SHOW ROOMS—31 ELY PLACE, HOLBORN CIRCUS.

And at 484 COLLIN STREET, MELBOURNE.



# "MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and  $\frac{1}{2}$ ,  $\frac{1}{4}$ , 1 lb. Tins only.



**TADDY & CO., 45 Minories, LONDON**



ESTABLISHED 150 YEARS,  
SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.

Write for List of Specialities.

**"LA JOYA"** This First-Class Brand of English-Made Cigars  
IS MANUFACTURED SOLELY BY

**M. & R. PEACOCK,**

TOBACCO, CIGAR, SNUFF, AND CIGARETTE MANUFACTURERS,

Who will be pleased to send a sample FREE to any address in the United Kingdom on application.

A box of 25 (as in margin) for 5/, or a box of 50 for 9/, on receipt of Postal Order or Stamps, carriage paid.

The only Manufacturers of the CELEBRATED "ROYAL CHARTER" TOBACCO.

WHOLESALE PRICE LISTS TO RETAILERS ON APPLICATION.

542 KINGSLAND ROAD, LONDON, N.E. ESTABLISHED 1858.



## RAIMES' CACHOUS.

RED AND WHITE ROSES, The most popular Cachou in the Trade. Size and Shape ○ FRAGRANT "BOUQUET" CACHOUS ○  
HELIOTROPE ○ VIOLET ○ ORANGE BLOSSOM ○ PRIMROSE ○

The excellence of the perfume and the superior make of these Cachous create a great demand wherever they are introduced.

Price 2s. 6d. per lb., 5 per cent. discount.

Samples on application.

Parcels of 14 lbs. forwarded carriage paid, with a handsome Glass Show Jar gratis (fig. A, No. 5, Maw's list), on receipt of P.O.O. for 3s.

**RAIMES & CO., WHOLESALE DRUGGISTS, YORK & EDINBURGH.**  
LONDON AGENTS—TIDMAN & SON, 21 WILSON STREET, E.C.

## THE SALVOLINO MANUFACTURING COMPANY 6 & 8 LIMESTREET SQUARE, LONDON, E.C.

Manufacturers of the CELEBRATED "SALVOLINO," which is not "VASELINE"—it is a far SUPERIOR article. It is simply UNRIVALLED as an article for the Toilet Table. It is absolutely PURE and ODOURLESS; it is the MAGIC HEALER of sores and wounds; it PROMOTES the growth of the Hair rapidly. It is used for Veterinary purposes with great advantage. It is a marvellous POLISH, also a PRESERVER of Patent Kid and other Leathers; it is the QUEEN of all similar Preparations. It is the ACME of Perfection. A SPLENDID EMOLLIENT; it FULLY answers the requirements of the PHARMACOPEIA.

In 1d., 2d., and 6d. neatly decorated Tins, and in Bulk.

## FLOOR WAX (AMERICAN),

For Halls, Ball-Rooms, &c.; does not soil the garments; easily and quickly applied. Put up in 1-lb. packages, price 2/- per lb.

FOR SALE IN ENGLAND BY

**WYLEYS & CO., COVENTRY.**



**COMPARE, AND THEN DECIDE.****5/6** per Gross.

BOTTLE SHAPE.

**PENNY**  
**MENTHOL**  
**CONES.**



BOTTLE SHAPE.

**5/6** per Gross.On  $\frac{1}{4}$ -Gross Show Cards, with Elastic. Sample Free.**PETER TYRER, 70 LONG LANE, BOROUGH, LONDON, S.E.**

**READE BROTHERS'**  
 PATENT

# MALT & HYPOPHOSPHITE BISCUITS

*A palatable and convenient mode of administering Malt and the Hypophosphites.*

The Biscuits contain 75 per cent. of Malt Flour to 25 per cent. prepared Wheaten Flour, and each Biscuit contains half a grain of the combined Hypophosphites of Lime, Potass, and Soda, thus rendering it an admirable tonic and nutritive Food, eminently adapted for those cases in which Malt and the Hypophosphites are specially indicated.

In Tins, 1s. 6d. and 3s. each; Trade Price, 15s. and 30s. dozen,

*From the Patent Medicine Houses, or from the Patentees and Manufacturers,***READE BROTHERS & CO.,** Pharmaceutical Laboratory, **WOLVERHAMPTON.**

THE ONLY PALATABLE NATURAL APERIENT WATER IS

# "FRANZ JOSEF"

Write for pamphlet and particulars to the Sole Importers—THE "FRANZ JOSEPH" COMPANY, 101 Leadenhall Street.

**"RAMORNIE."** **LIEBIG'S** Extract of Meat.

As supplied to the Admiralty, War, and India Offices.

1-lb. Jars.....	per lb.	6/8	.....	per doz.	81/0	2-oz. Jars.....	per lb.	7/8	.....	per doz.	11/6
$\frac{1}{2}$ -lb. Jars.....	"	7/0	.....	"	42/0	1-oz. Jars.....	"	8/4	.....	"	6/3
$\frac{1}{4}$ -lb. Jars.....	"	7/3	.....	"	21/9	$\frac{1}{2}$ -oz. Jars.....	"	8/8	.....	"	3/3

QUOTATIONS FOR EXTRACT IN "BULK" ON APPLICATION.

Write for Detailed Price List to the Australian Meat Co., 8 and 11 Fenchurch Avenue, E.C.

8 lbs. Carriage Free.



# DRUGGISTS' CONFECTIONERY.

## ROBERT GIBSON & SONS,

Medicated Lozenge Manufacturers,  
CARLTON WORKS, ERSKINE STREET, HULME, MANCHESTER,  
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### GIBSON'S SUPERIOR BOILED SUGARS

Have gained a High Reputation everywhere. FOR EXPORT TRADE. They are put up in 1-lb., 2-lb., and 5-lb. Bottles. Packed in Casks or in 1-doz. Cases as required, and delivered F.O.B. at any Port in England. These Sweets are absolutely pure. We specially recommend

Lime Fruit Tablets, Everton Toffy, Mixed Fruit Drops, Cough Drops, Raspberry Drops, Lemon Tablets.

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Musk, Rose, Mint, and other Flavours. In 1-lb. White Glass Bottles. Bottles free.

### COMPRESSED CHLORATE OF POTASH PELLETS, SACCHARINE PELLETS,

And PELLETS of every description, put up in 1-lb. White Flint Glass Bottles, with Boxwood Top Corks. Bottles not Charged.

## HIGH-CLASS LOZENGES

OF EVERY DESCRIPTION.

Chlorodyne Cough Lozenges, Chlorodyne Jujubes, Peppermint Lozenges,

In every variety of size and strength. Curiously Strong, and Multum in Parvo Mints give the utmost satisfaction Medicated Lozenges of Pharmacopœia Strength.

DIGESTIVE TABLETS. VOICE AND THROAT LOZENGES for Singers and Public Speakers.

## ORIGINAL SUGAR WORM CAKES

Have an immense sale, both at home and abroad; will keep in any climate, and give entire satisfaction. Put up in Tins containing 3 doz., 6 doz., and 12 doz. cakes.

### THROAT HOSPITAL LOZENGES

(As per T. H. Pharmacopœia.)

All Lozenges are sent out in 2-lb. and 4-lb. Bottles (bottles free), but allowed for if returned.

PROPRIETARY LOZENGES CAREFULLY PREPARED, STAMPED, AND CUT TO ANY SIZE OR SHAPE.

PRICE LISTS SENT ON APPLICATION.

E. C. RICH COMPANY, LIMITED, Agents, United States,  
AND  
MR. THOMAS LAKEMAN, 34 Pitt Street, Sydney, for Australia.



Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

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Barnett and Foster  
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Ellie & Son (Kenthin)  
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Hessell and Co. (Citric Acid  
Phospho)  
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Idris and Co.  
Kinmond and Co.  
Jewsbury and Brown  
Mills and Co. (Bonne)  
Schacht, W., and Co.  
Taylor, T. and F. J.  
[See GINGER ALE.]

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[See SYRONS and ESSENCES.]  
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Bratby and Hinchliffe (Ld.)  
Favarger and Co.  
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(METALLIC)

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Punn and Co.  
Fletcher, Fletcher & Stevenson  
Fuerst Brothers  
Goodall, Backhouse and Co.  
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Clarke  
Howards and Son (Pharm.)  
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Lewmore, Ang., and Co.  
Lofthouse and Saltmar  
Lorenz, H.  
May and Baker  
Morris and Callard  
Moss and Co.  
Poulenc, Freres  
Reade Bros. and Co.  
Stern, G. and G. (Kumilins)  
Smith, T. and H., and Co.  
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Zimmermann, A. and M.

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Co. (Limited)  
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Wright, Layman and Umney  
Zimmermann, A. and M.

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Howards and Son

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Mariani and Co.

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Woolley, Sons and Co.

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Burroughs, Wellcome and Co.  
Fuerst Bros.  
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Leo and Co.  
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Pascall, J.  
Warriek Brothers

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Seabury & Johnson (Plasters)  
Thompson, M. F.  
Young, H.

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Robinson and Sons (Aberdeen)  
Sanger, J., and Son  
Seabury and Johnson

**CRASH LENSED**

Mumford, G. S.

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Salvine  
Sutton, O., and Co.  
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Thompson and Cappie  
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Co. (Lim.)  
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Cummock, J.

De Carle and Son  
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Goodall, Backhouse and Co.  
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Bush, W. J., and Co.  
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mint)

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Clarke  
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Kepler Extract of Malt supplied to the Trade in Bottles, containing  $\frac{3}{4}$  lb. and  $1\frac{1}{2}$  lb., at 22s. and 38s. per dozen. Retail prices, 2s. 6d. and 4s.

The Kepler Extract of Malt may be obtained from all Wholesale Houses throughout the world.

These preparations are palatable and easily digested.

They assist the digestion of farinaceous foods and promote the thorough assimilation of starch.

They are ideal foods in scrofula, rickets, and consumption, and are recognised as highly nutritious foods.

The Kepler Solution of Cod Liver Oil is readily taken by children and invalids who are unable to take the oil itself, or in emulsion: furthermore, it does not cause eructations or excite nausea.

When there is rapid tissue metamorphosis the Kepler Solution of Cod Liver Oil is an admirable fuel for the system, maintaining nutrition and protecting the tissues against the ravages of the tubercle bacilli.

On account of the large amount of *diastase* present, the Kepler Extract of Malt is a useful digestive, it is soothing to the stomach and intestines, and tends to maintain a healthy condition of the digestive functions.

When the Kepler Solution of Cod Liver Oil is ingested it acts as a soothing agent. In irritable conditions of the gastric mucous membrane, the oil remains in solution in the Malt Extract until it passes through the pylorus and is then readily digested and completely assimilated.

—, M.D., M.R.C.S.E., writes:—"It is the only preparation of Cod Liver Oil children will take without trouble, and the only form I have seen which does not impair their digestion." April 22, 1887.

—, M.B., Maida Vale, W., writes:—"The Kepler Extract of Malt was for the use of my sister, who finds this preparation better than all others which she has tried." July 13, 1888.

—, L.S.A., Walthamstow, writes:—"Having recommended the Kepler Extract of Malt, and the Extract of Malt with Cod Liver Oil to a fair number of my patients, all of whom are loud in their praise of the wonderful effects, I am fully convinced of their great value." February 27, 1889.

Many foods are obtainable which are recommended on account of the nitrogenous matter contained in them. This is not the case with the Kepler preparations. We do not introduce it to the medical profession and trade as a vegetable beef-tea, because the real article is superior to any imitation possible.

Although the Kepler preparations contain as large a percentage of nitrogenous material as any similar preparation, they are recommended chiefly as an abundant source of carbo-hydrates, and in the case of the Kepler Solution of carbo-hydrates and assimilable fat.

## The Kepler Solution of Cod Liver Oil.



Kepler Solution of Cod Liver Oil in Extract of Malt supplied to the Trade in Bottles, containing  $\frac{3}{4}$  lb. and  $1\frac{1}{2}$  lb., at 22s. and 38s. per doz. Retail prices, 2s. 6d. and 4s.

This preparation is stocked by all Wholesale Houses throughout the world.

*The Lancet* reports:—"Kepler's is the best known, and in this country the largest used Extract of Malt. It is as distinct an advance in therapeutics as was the introduction of cod liver oil. It is one of the best remedies for atonic dyspepsia, and is undoubtedly useful in consumption and other wasting diseases."

*The British Medical Journal* reports:—"We can recommend the Kepler Malt Extract.—Being prepared at a very low temperature, its qualities are not deteriorated or its flavour spoiled.—It is very favourably spoken of by physicians, both in respect to its nutritive and digestive properties, and as being of very agreeable flavour." *The Medical Times and Gazette* says:—"By far the best."

**BURROUGHS, WELLCOME & CO., SNOW HILL BUILDINGS, LONDON, E.C.**  
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It will be observed that these goods can be resold at over 100 per cent. profit, and we trust the trade will recognise our efforts to give them the best goods at the lowest possible price.

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**B. W. & CO. Pure Saccharin Tabloids—**

	Retail each.	Per doz.
In Beautiful Crystal Glass Oval Bottles, with White Metal Caps, 100 in each...	9	7/6
Ditto, ditto, 200 in each...	1/6	14/

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# ISO-BUTYL NITRIS.

Also GLASS CAPSULES of ISO-BUTYL NITRITE.

For use in Angina Pectoris, Asthma, and similar complaints, by Inhalation.

**Liquor Cascaræ Suavis.**

(REGISTERED.)

An agreeable Aromatic Fluid Extract of *Cascara Sagrada*, possessing the full laxative and aperient properties of the bark.

**Sol. Æthyl Nitritis.**

Containing 3 per cent. of Pure Nitrite of Ethyl, in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The Comparative Effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

**Spiritus Ætheris Nitrosi.**

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

**Æther Nitrosus and Sol. Ætheris Nitrosi.**

Respectively 8 and 4 times the strength of the Spirit.

**JAMES WOOLLEY, SONS & CO.**

Manufacturing Pharmaceutical Chemists,

**MANCHESTER.**

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The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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THE CHEMISTS' AND DRUGGISTS' DIARY, 1891, is now in course of compilation, and advertisers are requested to send in their orders and copy as early as possible. The work has attained an unequalled position as the chemists' and druggists' desk-companion wherever English trade penetrates, and the circulation will this year again surpass that of any previous issue and that of any publication special to the trade.

MR. S. V. MORGAN, one of the proprietors of THE CHEMIST AND DRUGGIST, will be in the United States and Canada during October and November, and may be addressed care of Mr. C. F. A. Hinrichs, 29 Park Place, New York.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.

THE percentage of adulterated samples of food and drugs to those examined by the public analysts in 1889 was 11.5. In 1888 it was 10.8. "The percentage of samples of drugs reported against continues to be high." So says the report of the Local Government Board.

THE IRISH PHARMACEUTICAL COUNCIL have resolved charge the examiners' fees to candidates who come up a second time if the Privy Council will agree. They have also waxed earnest in a discussion on their right to employ the Society's funds on their school of pharmacy.

SWEET SPIRITS OF NITRE.—Proceedings were commenced last week against a chemist in Nottinghamshire for selling as "sweet spirits of nitre" an article not answering the tests of the British Pharmacopoeia. Messrs. Glaisyer & Porter, of Birmingham, were engaged to defend, but notice has been received that the authorities withdrew from the prosecution.

OFFICERS and members of pharmaceutical associations are requested to give attention to the facts and figures we have collected from all parts of the country in reference to the work and organisation of these bodies. Our object is to encourage concerted action, and to induce more interest and vigour in these associations.

In our Correspondence section the controversy in respect to concentrated tinctures and infusions is continued by Mr. Fletcher and "Nemo," and Sir James Haslett, of Belfast, replies to the President of the Pharmaceutical Society of Ireland on the question of which party was the more favorable to assistants in the legislative controversy this year.

LEGAL REPORTS.—Another chemist has to compound with Messrs. Beecham for selling as theirs pills not made by them. In another legal case reported by us, Mr. Commissioner Kerr said "it was new to him if a mere notice of dissolution of partnership in the *Gazette* could be construed into a notice to all debtors and creditors."

MR. H. J. CHANEY, the Superintendent of the Weights and Measures Department of the Board of Trade, has given us some information in respect to the verification and stamping of scales under the Weights and Measures Act, 1889. It does not seem likely that the Act can be enforced in January next, as local authorities will not have completed their arrangements in a number of cases.

A PROPOSED GERMAN EXHIBITION.—The next of the series of national exhibitions, promoted by Mr. J. R. Whitley, at Earl's Court, will be devoted to the arts and industries of the German Empire. The extension of commercial relations being considered to be the principal use of exhibitions, no commission will be charged on sales. Representative members of the German colony in London will constitute an advisory committee with a view to insuring the success of the exhibition.

SOME particulars are given in an Editorial Note of the new American Customs Administrative Act, which, coupled with the new tariff, renders the importation of merchandise into the States exceedingly onerous. The President, moreover, has now the power, without further sanction from Congress, to prohibit absolutely the importation of all or any descriptions of goods, from any country or port if it shall appear to him that such a step has become necessary in consequence of repeated evasions of the Tariff Acts, or for the protection of American interests.

THE subscription to THE CHEMIST AND DRUGGIST is 10s., which includes the numbers for a whole year, a copy of THE CHEMISTS' AND DRUGGISTS' DIARY next published, and postage to any part of the world. Orders and cheques should be made payable to Edward Halse.





**NO JURISDICTION.**—A pharmaceutical chemist, whose name did not transpire, but who said he resided in the neighbourhood of the Court, applied to Mr. Haden Corser at the North London Police Court on Tuesday with reference to a runaway apprentice. The lad had gone away, and he (the applicant) wanted him back again. Mr. Haden Corser: Was any premium paid? Applicant: Yes, 60*l*. Mr. Haden Corser: That takes it out of my jurisdiction; but you have the same remedy against your apprentice for breach of his agreement as he would have had against you had you failed in your part of the contract.

**TOO MUCH CAPITAL.**—The Bovril Company (Limited) have been summoned at the Clerkenwell Police Court by the St. Luke's Vestry for exhibiting a sky sign of which a capital B, a wooden letter 8 feet high and 4 feet wide, and weighing  $\frac{3}{4}$  cwt., was said by the surveyor to hang over Lever Street, at a height of about 152 feet. The proceedings were taken under the 119th section of the Local Metropolis Act (18 & 19 Vict. c. 120). The company denied that there was any projection beyond the building, but the magistrate held the case to be proved, and imposed a fine of 40*s*. The company's counsel intimated that they would consider whether they would appeal.

**AN ANALYTICAL CHEMIST SUMMONED.**—In the Lord Mayor's Court on Thursday, the case of Todd *v.* Wallis came on for hearing before Mr. Roxburgh (the assistant judge). Mr. Todd, the plaintiff, appeared in person, and said that he had recovered judgment against the defendant, Mr. H. W. Wallis, an analytical chemist, who carried on business at Holborn Viaduct as the "Dexter School of Chemistry," for 12*l*. 15*s*. This was upon bills of exchange given against chemicals which had been sold to the defendant, who had removed the goods to another place. The defendant had good offices, and that, coupled with the fact that he still had the goods in his possession, was evidence of means. An order was made for 1*l*. per month.

**THE SULPHATE OF AMMONIA TRANSACTION.—JUDGMENT.**—In the City of London Court on Friday, October 3, before Mr. Commissioner Kerr, the case of Forbes *v.* Hecker was finally disposed of, after having been before the court on many occasions, and reported each time in THE CHEMIST AND DRUGGIST. The plaintiffs were Messrs. Forbes, Abbott & Lennard, chemical manufacturers, Ingram House, Fenchurch Street, E.C., who sued the defendants, Messrs. Paul Hecker & Co., chemical merchants, 14 Mincing Lane, E.C., for 40*l*. 5*s*. 8*d*. the balance of 6,640*l*. 5*s*. 8*d*. (6,600*l* having been paid on account) for sulphate of ammonia supplied. The defence was short weights. Mr. Registrar Wild, to whom the matter was referred, now made his award in favour of the plaintiffs for the full amount. Mr. George Kebbell, for the defendants, asked that no costs should be allowed under the circumstances, because the plaintiffs should have gone to arbitration in the first instance instead of the High Court. Mr. Commissioner Kerr said he could not disallow the costs. It was only the old story over again. The parties had spent a lot of money on law, whereas two men in the chemical trade would have settled the dispute at once. Judgment for the plaintiffs, with costs, was then entered.

**SUICIDE OF A DRUGGIST'S TRAVELLER.**—On Monday afternoon, Dr. George Danford Thomas, coroner for Central Middlesex, held an inquiry at Hornsey, relative to the death of Robert Harman, aged 58 years, lately residing at 22 Albert Road, Stroud Green, who committed suicide by poisoning himself. The evidence of the widow and son showed that the deceased was a drug traveller in the employ for the last 12 months of Messrs. Baiss Brothers, wholesale chemists and druggists, and before that was traveller to Messrs. Barron, Squire & Co. for 22 years, but on the death of the head of the firm he, with others, had to seek a fresh situation. Deceased at times was given to excessive drink-

ing. Of late he had complained of business being very bad, and spoke in a despairing way of life, and threatened to destroy himself, but no notice was taken of such threats. On Thursday evening, October 2, his wife left him sitting up in his chair reading when she retired to bed, which was nothing unusual, and then he was in his usual health. The following morning at six o'clock she found that deceased had not been to bed all night, so informed her son, who went downstairs and found the deceased sitting in his arm-chair, and on examining him found that he was quite dead, and had been so for many hours. Near to the deceased he found a bottle that had contained an ounce of prussic acid, but which then only contained a few drops. On Dr. Hutton, of Stapleton Hall Road, making a post-mortem examination, he found that death was clearly due to prussic acid poisoning, and that a very large dose must have been taken by the deceased, because the brain was affected by it. Dr. Hutton, who had known deceased for 30 years, stated that deceased suffered from heart-disease, and at times, owing to his habits, he was not responsible for what he did or said. The jury returned a verdict that the deceased committed suicide whilst of unsound mind.

**FIGHT IN A DENTAL SURGERY.**—Before Mr. Slade, at the North London Police Court, on Monday, James Stamford Cook, a traveller, of Defoe Road, Stoke Newington, was summoned for assaulting and beating James Kemp Devonshire, a dental surgeon, of Church Street, Stoke Newington. The complainant said that a week ago the defendant came to his house in an excited manner, struck him a violent blow in the face, and attempted to drag out one of his (witness's) eyes. In cross-examination the complainant denied that he had insulted the defendant's wife. The fact was she had some false teeth made at a cheaper rate than ordinary, and, in consequence of biting on one of these (after nearly two years' wear), one of the teeth broke. The lady brought the teeth back, and said they had been guaranteed not to break, but this was not so, because no professional man who was a licentiate of the Royal College would give such a guarantee. He told her he would repair the broken tooth, and then she did not want to pay his charge. She wasted so much of his time that he did open the folding doors between his surgery and waiting-room and show her out, but he did not insult her. He was bound to end the conversation, because he had steam machinery at work which wanted attending to. The defendant came at night, and began abusing him, and when he (complainant) ordered him out, the blows mentioned were given. The defendant was dragging at his (witness's) left eye, and when he asked him to desist, the defendant said that he came there to resist. Mr. Young, for the defence, said both parties were evidently excitable men. The magistrate ordered the defendant to enter into his own recognisances of 5*l*. to be of good behaviour for three months, and to pay 23*s*. costs.

## Provincial Reports.

*Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.*

### CAMBRIDGE.

**THE PROGRESS OF CHEMISTRY.**—The study of chemistry goes on apace at this University. So great has been the number of students in recent years going in for this subject that it necessitated the erection of a new University laboratory, a fine building, situated in Pembroke Street, which cost upwards of 35,000*l*. The lectures, given by Professor Liveing and others, are attended by a large number of students, including a good many ladies. During the vacation great alterations have been made at Caius College Laboratory, in order to accommodate the increased number of students of chemistry who now take up their abode at this college. A new laboratory is being built, capable of accommodating 50 students at one time instead of 21 as heretofore. The lectures of Mr. M. M. Pattinson Muir, professor of chemistry at Caius College, are well attended.



## LEICESTER.

**POISONED.**—On Monday of last week George S. Grainger, aged 50, in the employ of the Corporation, died at the Leicester Infirmary from laudanum-poisoning. The deceased had in the morning of that day complained to a fellow-workman that he was suffering from diarrhoea, and would go down to the Municipal Buildings to get some mixture. He obtained a bottle of the mixture, but later in the day was found in a field, evidently suffering from opium-poisoning. He was at once removed to the Infirmary, but died the same evening. It was inferred that the diarrhoea mixture had caused the man's death, but from inquiries which the authorities made, a man of Grainger's description, on the day named, applied to Mr. Hodgson, chemist, Leicester, for three-pennyworth of laudanum, which, however, Mr. Hodgson refused to supply, as no satisfactory reason for its use could be given. It could not be ascertained where deceased obtained the laudanum which the post mortem examination showed to be the cause of death. At the inquest the jury returned a verdict in accordance with the medical testimony, and said the medicine obtained from the Town Hall had nothing to do with the cause of death.

**LEICESTER AND LEICESTERSHIRE CHEMISTS' ASSOCIATION.**—The annual distribution of prizes in connection with this association took place at the Clarendon restaurant, on Thursday evening. Mr. J. G. F. Richardson presided, and, in awarding the various prizes to the students, remarked on the good results attained during the year, and on the favourable reports of the lecturers. He referred to the advantage gained by having the Technical School laboratory and the Botanical Gardens placed so freely at their disposal. The thanks of the association having been accorded to the Rev. J. Went, M.A., for the use of the Technical School laboratory, and to Mr. J. Burn and his colleague Mr. Burton, of the Abbey Park, for their kindness in supplying botanical specimens for the students, the President, Mr. Richardson, presented the prizes as follows:—Practical chemistry: First prize, Mr. W. J. Hopkinson; second prize, Mr. W. H. Green. Theoretical chemistry: First prize, Mr. C. J. Wathes; second prize, Mr. E. W. Widdowson. Materia medica: First prize, Mr. A. P. Eldred; second prize, Mr. A. E. D. Devereux. Botany: First prize, Mr. O. T. Elliott; second prize, Mr. W. H. Green. There was a very good attendance of members and friends, and the remainder of the evening was spent in a very pleasant and sociable manner.

## LIVERPOOL.

**CHEMISTS' ASSOCIATION.**—The next meeting will be held on Thursday, 16th inst., when a president for the next session (to take office in January next) will be elected.

**PRELIMINARY EXAMINATION.**—The examination will be held at The Institute, Mount Street, on Tuesday next. Thirteen candidates have entered for this centre.

**THE PHARMACY BILL.**—The local secretary is exercised considerably in his mind as to whether he ought not to ask the President of the Pharmaceutical Society to come down and address a meeting on the merits of the Bill. At present it is thought, however, that his mission is that of *converting the heathen* rather than bringing the heterodox to the true faith.

## MANCHESTER.

**MR. CARTEIGHE'S VISIT** to this city has been fixed for October 28. He has promised to address a meeting of the chemists of the district, their assistants and apprentices, at the Grand Hotel at half-past three o'clock on the afternoon of that day. Mr. Carteighe, we are informed, is anxious that there should be a free discussion of matters affecting the relations of the Pharmaceutical Society and the trade.

**"ADULTERATION."**—At the opening meeting of the session of the Manchester Pharmaceutical Association on Wednesday afternoon, attention was directed to the paragraph under this heading, which appeared in last week's CHEMIST AND DRUGGIST, and complaint was made that

Mr. Carter Bell, the Salford borough analyst, should have considered it his duty to report to the Salford Council several cases of so-called adulteration of citrate of magnesia with sugar. It was said that Mr. Carter Bell had really no ground of complaint, as the citrate of magnesia commonly so-called is, of course, the granular effervescent citrate and is not supposed to be pure citrate of magnesia. It is understood that something more may be heard of the matter.

**MICROSCOPICAL SOCIETY.**—What promises to be a very successful session was opened with a *conversatione* on Thursday night of last week. During the evening practical demonstrations were given in the preparation and mounting of objects for the microscope. There was a large display of microscopes and microscopical objects, including one or two which proved of special interest to the pharmaceutical visitors. Mr. James Hart, pharmaceutical chemist, is the honorary secretary of the society.

**TENDERS FOR DRUGS.**—In a paper which he read at the Poor-Law Conference at Southport last Saturday Mr. Whittaker, of Burnley, remarked, in passing, that it was still needful to utter the truism that, with regard to contracts for drugs, &c., first cost is not the real test of cheapness. That this is so is apparently the opinion of our Manchester Board of Guardians, who do not advertise for tenders for drugs as they advertise for tenders for other commodities. The contracts for stores for the coming year have just been entered into, writes our correspondent, and I called at the Board offices to inquire what had been done with reference to the drugs, but "Mum," I was told, was the word. The guardians do not approve of the publication of any details of the contracts. From private inquiries I gather that the practice is to ask one or other of the best-known pharmaceutical firms in the city to supply the drugs for the ensuing year at prices which are mutually arranged. This year the choice of the Board has fallen either on Messrs. James Woolley, Sons & Co., or Messrs. Oldfield, Pattinson & Co. As to the merits of the system, I express no opinion; but it may at least be said for it that it is not open to the objection mentioned by Mr. Whittaker.

**MANCHESTER PHARMACEUTICAL ASSOCIATION.**—The annual general meeting of this association was held on Wednesday afternoon, in the rooms of the Chemical Club, Victoria Hotel. There was a fair muster of members, and before the meeting closed several additions were made to the roll. Before the business was entered upon, Mr. F. Baden Bengier, who presided, proposed a vote of condolence with Mr. W. Spencer Turner, of the Manchester College of Pharmacy, on the death of his wife. The motion was seconded by Mr. H. Kemp, and adopted. Mr. H. Wilson, the hon. secretary, submitted the report of the Council, in which it was stated that during last session six meetings were held with more than average attendances. Four papers were read. A smoking-concert and supper were held, the attendances at which were satisfactory, and these entertainments resulted in the election of several new members. During the session the Council were consulted by the authorities of the Owens College with reference to the re-organisation of the pharmacy course, which has been carried out in a manner which it is hoped will prove satisfactory. The Council regretted to record the loss the association had sustained by the resignation of Mr. W. Elborne, who had left Manchester for Cambridge. In conclusion the report made reference to certain additions which had been made during the year to the society's library. The Chairman said he considered the report very satisfactory, and he moved its adoption, which was seconded by Mr. W. Bowden, and carried. Mr. Wilson, the secretary, was the recipient of a vote of thanks for his services. The following gentlemen were elected to act as the Council of the association for the ensuing session—viz.: Mr. W. S. Brown, Mr. W. Wilkinson, Mr. F. B. Bengier, Mr. G. S. Woolley, Mr. H. Wilson, Mr. W. Botham, Mr. W. Bowden, Mr. W. Arrandale, Mr. W. Stones, Mr. H. Westmacott, Mr. H. Kemp, and Mr. W. Kirkby. It was arranged that the Council should meet on Wednesday, the 22nd inst., for the election of officers. On the recommendation of the Council, a number of alterations were made in the rules, with the view of securing the more efficient working of the Society.



## SCOTLAND.

## EDINBURGH.

## CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

—The first meeting of the thirteenth session will be held at 36 York Place, on October 15, at 9.15 P.M., when an inaugural address will be delivered by Donald McEwan, president of the association.

**THE BALL.**—We are asked to intimate that the Edinburgh Ball Committee will meet on Monday next at 9.15 P.M. We are not told where, but presume that the house so long inhabited by Combe, the philosopher, will give shelter to the terpsichorean devotees.

A BURGLAR broke into the premises of Messrs. James Robertson & Co. 35 George Street, on Sunday last. Entrance had been effected by breaking a pane of glass in a back window. The time selected for the nefarious operation was between two and five in the afternoon, while the assistant was off duty. A few pounds in cash were taken by the thief.

## GLASGOW.

## CHEMISTS AND DRUGGISTS' ASSISTANTS' ASSOCIATION.

The opening meeting of the session will be held in the Waterloo Rooms, on October 15, when an address is to be given by Dr. J. McGregor Robertson, M.A., assistant professor of the Institute of Medicine, Glasgow University. The following is the programme for the course:—October 22, smoking-concert, Waverley Hotel, Buchanan Street, 9.30 P.M.; October 29, "The Charms of Science," Alexander Laing; November 5, "Sir Robert Christison," James Robb; November 19, "Spiritus Ætheris Nitrosi," George Robertson; December 3, "The Microscope," James P. Gilmour; December 17, "Notes on the Grasses," William Bowie. 1891: January 7, "Economic Botany," Professor Thos. King, Anderson's College Medical School; January 21, debate, "The New Pharmacy Bill," members; February 4, "Some Suggestions for Pharmacy Students," J. Rutherford Hill, Edinburgh; February 18, "The Pros and Cons of Counter-prescribing," David Watson; March 4, "Ideal Pharmacy," William Fisher; March 18, "Water Analysis," Thomas Robinson; March 25, closing address, Alexander Kinninmont, Ph.C., F.C.S.

## General News.

**FIRE AT A BARNSELY CHEMIST'S SHOP.**—On Sunday evening last, shortly after 8 o'clock, some goods stored in a cellar underneath the shop of Mr. Arthur Oglesby, chemist, Barnsley, were found to be on fire, and the flames quickly reached the whole house. Notice was at once given at the fire-station, and the fire was subdued about midnight. The damage, however, is estimated at about 400*l.*, which is partly covered by insurance.

**HALF-HOLIDAY.**—At Southport most of the tradesmen close their shops at 4 P.M. every Wednesday. A few, including two chemists (Messrs. E. Surr and S. J. Elliott), close from 1 P.M. to 6 P.M. We do not see the name of any other chemist in the Southport half-holiday list. The promoters of the movement are publishing "as required" a four-page sheet called the "Southport Early Closing Gazette," which is distributed gratis.

**SEQUAH.**—Last Saturday evening disturbances occurred at Kingston-on-Thames in connection with the Sequah business. A local grocer was selling the medicines at cut prices while the travelling agent was in the place. This policy is objectionable to the firm, and a good deal of unfriendly feeling was aroused. The crowd seems to have sympathised with the chariot man, and on Saturday evening great masses of people presented themselves before the grocer's shop, hooting, howling, and ultimately smashing his windows. Three men were arrested and brought before the magistrates on Monday, when fines of 10*s.* or 14 days on two of them, and 20*s.* or 21 days on the other, were imposed.

**AN OFFENSIVE TANK** at Messrs. Forbes, Abbott & Leonard's Chemical Works, Kingston-on-Sea, recently caused the Brightonians in its neighbourhood some annoyance,

and the sanitary authorities asked the firm to put a lid on the tank. This was done, and apparently the sanitary authorities are very proud of their action, for at a meeting the other day the correspondence about the matter was read, the meeting thanked the firm, and it is placed on record that the Government inspector, who visited the works just previously, has reported that they were the best conducted in his district, in fact, the firm had done everything that was requested in every shape and way.

**FASCINATIONS OF PHOSPHORUS.**—At the Watford Petty Sessions last week, Henry Gale, 14, was charged with stealing a quantity of phosphorus, value 6*d.*, the property of James Lees, chemist, High Street. The prisoner was in Mr. Lees' employ as errand-boy, and on September 26 took some phosphorus from a bottle in the cellar, where it was carefully kept, and put it about in different places. Mr. Lees stated that there were three different fires in a shed or barn, and he extinguished them with water. There were small pieces of the phosphorus on the cellar floor. The boy did it in mischief, no doubt, more than with the intention of stealing. It was fortunate that his attention was called to it, as in another ten minutes the barn would have been in flames. The boy told the policeman that he had been told the phosphorus would frighten people in the dark, and he thought he would try it. The Bench, while considering that Mr. Lees had done rightly in bringing the matter before them, thought there was no intention to steal, and discharged the boy.

**PRETENDING TO BE A DOCTOR.**—Dennis Thomas Loring was charged before the Exeter magistrates last week with obtaining money by pretending to be a doctor of medicine, at Topsham, on September 11, but he did not appear. A woman residing at Topsham said that about 4 P.M. on September 11 a man whom she did not know called at her house, giving as an excuse for calling that some persons had told him witness had some children who were ill. He said he wished to prescribe for witness and her children, and alleged that he was a doctor. One of witness's children was examined by the man, who said the child had weak eyes, and wrote out a prescription, to which he appended the signature of Dennis Thomas Loring. At first he asked for 2*s.* 6*d.*, but subsequently said he would take 1*s.* 6*d.* for the prescription. Witness eventually gave him 6*d.* to get rid of him. The policeman said that defendant, on reading the summons served on him, stated that he did not say he was a doctor. Defendant had written prescriptions for several other persons in Topsham. He had no surgery, merely taking lodgings for a fortnight at a public-house, the same as he did in Exeter. The Bench imposed a fine of 3*l.* A warrant was ordered to be issued for the apprehension of the defendant if necessary.

**THE FIRE AT NEWCASTLE.**—The inquest on the firemen—William Murphy and James Grey—who died from injuries received at the fire which occurred at the establishment of Messrs. Mawson & Swan, chemists, Newcastle, on the 23rd inst., has not yet been concluded. On Wednesday last evidence was given by William Anthony Bygate, manager of the chemical department, who said he went to the cellar on hearing that a bottle of nitric acid was broken. He noticed an unopened case of acid fuming slightly on the floor of the cellar. He told two warehousemen to carry the carboy on to the hoist for the purpose of getting it outside. They were able to carry it only part of the way, as the fumes became overpowering. Directly they set it down it seemed to burst into flame in the interior of the case. They then directed the permanent fire-hose on to the box, but the water did not seem to have any effect, as the box was too much clogged. Before they were aware of their position the fumes became so dense that they were unable to get out of the cellar. He shouted to those above to open a disused exit in another part of the cellar. After some delay it was opened. He was almost unable to move, but shortly after getting outside he felt better. He had, however, been laid up ever since. He told the firemen not to go to the cellar or they would be killed, but he did not know if they heard him in the excitement. They put carbonate of soda on the case when they got it out in the street on the advice of Mr. Clague, and Mr. Griggs applied ammonia to the coats of the firemen for them to inhale. The inquest has been adjourned for three weeks. The relief fund amount to about 1,500*l.*



## FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent)

DR. ALEXANDER BOGGS, a former surgeon of the British Indian army, died on October 5, aged 67. Deceased was a native of Madras, and a medical graduate of both the London and the Paris faculties. After serving in India and during the Crimean war, he retired in 1863, and settled in Paris, where he married a French lady, and successfully practised medicine. He was the Paris correspondent of the London *Lancet*, and a contributor to several French scientific publications.

**CARBON BISULPHIDE EXPLOSION.**—On October 3, while a workman was, at the Marseilles works of the Mediterranean Oil and Soap New Company, engaged in unscrewing a joint in a carbon bisulphide supply-pipe, an unexplained explosion took place. The fire spread to a still then working in another room; but, the head not being bolted on, the explosion there was not a violent one. Yet three men were injured more or less seriously. The fire was put out at once without difficulty.

**CHOLERA IN SOUTH FRANCE.**—A case of genuine Asiatic cholera has been officially reported as occurring at Lunel. A man recently came from the infected districts in Spain, after passing the regulation inspection at the frontier, and filing his certificate at the Lunel mayor's office. A few days later he was taken sick with the disease. He has recovered, but his mother died on September 23. The adjunct-mayor of the place has been suspended for not having kept the family under medical observation as the law directs.

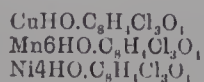
DOM PEDRO was present at the Academy of Sciences' sitting of October 6, and occupied the seat he is entitled to as a foreign associate member of the company. The ex-Emperor seems to bear his adverse misfortune bravely, and even took a hand in the debates. M. Faye was relating the effects of the recent tornado in the eastern departments, and describing the numerous instances of ball lightning there observed; M. Mascart presented some objections—not his own, though, but entertained by a physicist of some repute, who is of opinion that ball lightning has no existence in fact, but is a mere optical delusion. The chief argument is that the phenomenon has never been observed by a scientist, and always by peasants or ignorant persons. M. Faye replied that there are on record observations made by naval officers, when Dom Pedro rose and said he saw ball lightning once himself while travelling on horseback in Brazil, and was perfectly certain there was no optical delusion in his case. This direct testimony ended the discussion.

## PARIS SOCIETY OF PHARMACY.

At the meeting on Wednesday, October 8—a well-attended one, although Long Vacation can scarcely be said to be over—M. Bocquillon read a paper on

## BUTYL-CHLORAL.

The compound having received several names in succession—for instance, croton-chloral at one time, and butyl-chloral afterwards—the author's object was to ascertain which is the correct appellation. As the crotonic and the butylic aldehyde only differ by two equivalents of hydrogen, they are very difficult to distinguish with certainty in organic compounds. But M. Bocquillon thought of preparing the acid corresponding to the doubtful aldehyde, and to form therefrom metallic compounds easily purified and analysed. This was without difficulty effected by means of concentrated acid, and the following combinations obtained with copper, manganese, and nickel:—



From which it follows that butyl-chloral is the proper name for the compound.

## MUSHROOM SUGAR.

M. Bourquelot related further experiments made this summer with some varieties of mushroom to be only had during that season. He has already observed the rapid transformation of crealose into mannite, even by simple drying. Indeed, it is only in young mushrooms that crealose can be found at all. This time a lot of mushrooms was divided into three equal portions of 2 kilos. each. The first was immediately scalded with boiling water; the second placed in a close jar over chloroform, but not in contact with it; and the third allowed to dry. No. 1 gave crealose, and no glucose in the mother-waters. No. 3 had only mannite, and neither glucose nor crealose; while in experiment No. 2, the mushrooms over the chloroform discharged a quantity of water, at the same time becoming black and shrivelled. They were found to contain crealose, but the mother-waters held glucose, or, at least, a substance reducing Fehling's solution.

Messrs. Patein and Boymond, in the course of the discussion, remarked that chloroform is known to occasion in the urine of chloroformed patients the formation of a substance which also reduces Fehling's solution, and persists for a long time after the administration of the medicine.

## TESTING TUNISIAN OLIVE OIL.

Professor Burcker, of the Val-de-Grâce, called attention to the fact that quantities of olive oil are now beginning to come from Tunis, and much more may be expected. Some important points regarding the oil should be borne in mind by such pharmacists as may be called upon to act as experts—namely, the peculiar behaviour of Tunis oil with the reagents used for the European olive oils. The silver nitrate and alcohol test, for instance, relied upon to show the presence of oils from the Crucifer family, will give with pure Tunis oil the colour reaction, though all foreign oil be certainly absent. The same is true of the usual test for the addition of oil of sesame—namely, muriatic acid and sugar, which will strike a pink colouration. Pure Tunis olive oil will also develop a pink colour with the reagent.

The Society having adjourned, the Committee on Unofficial Formulæ met, to proceed with their report.

## Foreign News.

**PHARMACEUTICAL SWEATING IN ITALY.**—A few days ago, says the Italian correspondent of the *Pharm. Zeit.*, the position of under-director of the pharmacy of the principal hospital in Ancona became vacant. Applications were invited by public announcements, and among the numerous replies was one from an unqualified chemist's assistant, who after some consideration secured the post over the heads of all his qualified competitors because he declared himself willing to accept a salary of 100 lire (4*l.*) a year.

**FIRE IN A GERMAN CHEMICAL WORKS.**—A fire recently caused very considerable damage in the chemical factory of Sthamer, Noack & Co., Billwärder, near Hamburg. It originated through the leaking of a tube used for conducting ether from one compartment into another, and the escaping ether being set on fire by someone who approached with a lighted lamp. The fire attained huge proportions owing to the inflammable nature of the materials stored in the vicinity of the spot where the accident occurred—oil of camphor, alcohol, and sulphuric ether being among the commodities warehoused there. The works were insured in various companies.

**SPANISH MUNICIPAL QUININE.**—There has been quite a small commotion among the public press in Madrid on account of the alleged expenditure by the Municipality of 1,100,000 Reales (about 1,100*l.*) in one year for sulphate of quinine distributed among the poor. The authorities were hotly attacked for what was stigmatised as an unwarrantable waste, and the occasion has been improved by a side-shot at the pharmacists for the profits which they are said to have drawn from the contracts. But accounts have now been furnished showing that the expenditure under this head, instead of 1,100,000 Reales, has been only 140,000 Reales, and the outcry has subsided.



## Pharmaceutical Society of Ireland.

### COUNCIL MEETING, OCTOBER 1, 1890.

THE President (Mr. Charles Evans) in the chair. Also present: The Vice-President (Mr. Wells) and Messrs. Merrin, McCormack, Beggs, Hayes, Doran, Hodgson (Treasurer), Professor Tichborne, and Dr. Burnes.

#### LETTERS WERE READ

From Mr. John Evans, L.A.H., thanking the Council for re-electing him their examiner in practical pharmacy.

From Dr. Alexander Gordon, Dublin, declining to offer himself for re-election as a member of the Council in consequence of inability to attend its meetings.

From Mr. J. B. Alister, asking whether as an assistant he could be allowed to go in for the Major examination before he was 21 years of age.

The PRESIDENT said the Council had no option. The Act prohibits candidates under 21 years of age from presenting themselves, and the Registrar was therefore directed to inform Mr. Alister that the Council were unable to grant his request.

From Mr. Thomas McDowell, on the part of the City of Belfast Young Men's Christian Association, asking that their chemical school should be added to the list of schools recognised by the Society. Particulars of the school were given, and further information concerning it had been sent in reply to the letter from the Registrar.

It was resolved that Messrs. Payne and Montgomery should be requested to visit the school and report upon it to the Council.

#### THE ASSISTANTS' EXAMINATION.

A letter was received from Mr. John W. Cussons, 3 Albion Street, Belfast, directing attention to the fact that under section 19 of the Pharmacy Amendment Act the Council now have power to arrange examinations for assistants, and practically to insist upon every chemist's assistant holding a qualification under this section; and asking information as to when the examinations would be held.

The VICE-PRESIDENT: The section gives a power of qualification, but it does not make it compulsory on the employer to have his assistants qualified.

On the motion of Dr. BURNES, seconded by Professor TICHBORNE, the Registrar was directed to write to Mr. Cussons informing him that section 19 was not yet in force, and that even when it should become so it would not be compulsory upon any assistant to be examined, nor upon any employer to require his assistant to submit himself for examination, although it was advisable that all should do so.

#### QUERIES DISPOSED OF.

Mr. W. Francis Crofts, Stoke-on-Trent, asked whether a registered associate of the British Pharmaceutical Society could legally trade as a chemist and druggist in Ireland and *vice versa*. The Registrar was directed to answer the inquiry in the negative.

Mr. John Stewart stated that he had been in business in Westport, Mayo, as a chemist and druggist during 1887 and 1888, and asked when he could present himself for examination. The Registrar had replied saying that due notice would be given of the days of examination.

Mr. Charles J. Strother inquired whether a person who had been engaged in pharmacy in England and elsewhere for upwards of twenty-six years, and who had been in business as an active partner in a firm of chemists and druggists in London from 1874 to 1878, was entitled to be registered by the Pharmaceutical Society of Ireland.

Mr. HAYES: He can go in for our examination.

Mr. HODGSON: Does not the Amendment Act say that the trading must be in Ireland?

The Registrar was directed to reply stating that the Council had no power to register any person who had not passed his examination.

#### REGISTRATION NEWS.

The following gentlemen had applied to be registered as chemists and druggists:—Mr. Thomas Boland, Ballinagh,

co. Cavan; Mr. James Clarke, Shercock, co. Cavan; Mr. Henry Naris, Killeshandra, co. Cavan; Mr. James McCann, Killeshandra, co. Cavan; Mr. Daniel Brogan, Castlepollard, co. Westmeath; Mr. Joseph Holton, Nenagh, co. Tipperary; and Mr. Patrick Carroll, Dunleer, co. Louth. All these applicants stated that they were in business prior to 1875.

On the motion of the PRESIDENT, schedules, which had been drawn up for the registration of chemists and druggists and registered druggists, containing all necessary information, were approved, and it was ordered that copies of the schedule appropriate to their case should be forwarded to each of the seven applicants.

#### THE EXAMINATION FEES.

Mr. HAYES moved—

That the regulation allowing rejected candidates to present themselves for re-examination without payment be amended so as to read "on paying the examiners' fees."

Last week they found that four candidates were coming up for examination. Under the existing regulation they could do so without paying the examiners' fees, so that the Society would have to pay 6 guineas for which it would get nothing. That was scarcely fair. He did not think any other institution but their own had such a regulation.

The VICE-PRESIDENT seconded the motion. He said a young man knowing that a second examination would cost him nothing was tempted to come up for the first not sufficiently prepared. If he knew that he would have to pay the second time he would not do so. The result was a loss of 31s. 6d. to the Society in respect of each examined candidate. The present rule was made eight or ten years ago.

Mr. HODGSON said, as well as he recollected, there was a long argument about it at that time, and the feeling of the Council was that 5 guineas was a very large sum for a young man to have to pay, in addition to railway fare and hotel expenses for perhaps two or three days, especially as he might be rejected a second time.

Professor TICHBORNE said that was the substance of what occurred. It was deemed a kind of compromise—an act of charity.

Mr. HAYES: It will be a kindness to the students to make them come up better prepared. Of the six candidates who are coming up this time, two are presenting themselves for the third time, and will have to pay.

The motion was put and unanimously agreed to.

The PRESIDENT: It cannot affect those who have already failed; we are bound to give them a second examination free.

Professor TICHBORNE: The resolution just passed will have to be ratified by the Privy Council.

#### EXAMINATIONS UNDER THE NEW ACT.

The following report from the Pharmacy Amendment Act Committee was read:—Meeting to consider the regulations for examinations under the Pharmacy Act (Ireland), 1875, and the Amendment Act, 1890. Present: The President, the Vice-President, Dr. Burnes, Mr. Hayes and Professor Tichborne. Mr. Samuel P. Boyd was present by invitation to confer as to the rules and fees for the modified examinations. The following basis of examination was arranged:—If the examination be held in the country, the candidate to pay 10s. 6d. extra for expenses. All candidates to pay one guinea for examination and one guinea for registration. No examination to be held outside Dublin unless there be twelve candidates. Dr. Burnes proposed that the extra payment should be one guinea instead of half a guinea; in which the Vice-President concurred. The feeling of the committee was in favour of the half-guinea.

The PRESIDENT said that the committee not having been unanimous about the amount of the fee for examination in the country, the matter remained for decision by the Council. Mr. Boyd had stated that if the Council should not be satisfied with the amount proposed by the report, there would be no use in appointing a sub-committee to meet those whom he represented; but that if the Council accepted the fees as recommended in the report, his friends would meet a sub-committee from the Council.

Dr. BURNES mentioned that nothing less than a guinea fee from each candidate examined in the country would



recoup the Council, having regard to the expense that would be incurred in sending an examiner to the country.

Dr. BEGGS: I don't think it is enough.

Dr. BURNES: The Act of Parliament gives us power to recoup ourselves any expense that we may be at.

Mr. MCCORMACK: Shall we not have to send with the examiner either the Registrar or a member of the Council?

The PRESIDENT: I think so.

Professor TICHBORNE: My view is that outside Belfast and Cork you will have very few applications. There are very few towns that will supply twelve candidates at the same time.

On the motion of Mr. HAYES, the report was adopted.

#### THE SCHOOL OF CHEMISTRY.

Mr. HODGSON (Treasurer) said that during the week he had had a troublesome job in making out the accounts of the Society for the annual meeting, and it cropped up that some money had been received and some had been paid away during the year on account of the School of Chemistry, and these figures came into the general account. Against that he entered his solemn protest. He thought it extremely irregular. He had received a letter from Mr. Brunker in which that gentleman called attention to the fact of the outlay on the Chemical School, looking on it as extremely irregular. Mr. Brunker said in the letter that, as no regulations respecting the school had been approved of by the Privy Council, no payments could be made out of the Society's funds on its account, and he mentioned that he had written a letter to the auditors on the subject. He (Mr. Hodgson) highly approved of the school, and thought that they should give it every countenance, but he protested against the finances of the school being mixed up with those of the Society. The accounts showed that there was now a balance of 7*l.* 9*s.* 9*d.* in hand belonging to the school. He would move—

That a committee be selected from the members of the Council of the Pharmaceutical Society to control and manage the Chemical School; that they elect out of their members one gentleman to act as secretary and treasurer to the school, who shall receive all fees and make all payments in connection with it; that the Pharmaceutical Society in future have nothing to say to the monetary affairs of the school; and that a cheque for 7*l.* 9*s.* 9*d.* balance in the hands of the Pharmaceutical Society to the credit of the school, be handed over to the secretary of the committee of the school as soon as he is appointed.

The VICE-PRESIDENT: That motion requires notice.

Mr. HAYES said he would second it. As one of the auditors he had been put into rather an awkward dilemma on this occasion. He had acted as auditor of the Society for fifteen years and during that time he had found the accounts most satisfactory and had never had to change a figure presented by the Treasurer. On this occasion he approached the accounts with a feeling of uncertainty as to how he should act. He was glad of the establishment of the school, which he thought was a necessity under the present condition of things. But the way in which the school should be carried on, and whether the Society should be mixed up with it, were quite different matters. He had received a letter from Mr. Brunker, which he read, and which was to the same effect as that to which Mr. Hodgson had referred. Mr. Brunker did not wish to be taken as objecting to the establishment of the school, as, if properly regulated and kept, it would form a legitimate and extremely useful part of the Society's work. No direct statutory power, the writer continued, was conferred on the Council by the Act of 1875 to establish such a school, but the general powers conferred by subsection 8 of section 16 of that Act probably covered such a scheme, subject to the limitations of section 17. In the absence, however, of approval by the Privy Council he held that it would be illegal to spend a penny of the Society's funds on the school. He should make use of this caution as might be necessary in future should occasion arise. Mr. Hayes found that there had been an expenditure of 17*l.* 14*s.* 3*d.* on account of the school, against which they held funds to the amount of 25*l.* 4*s.*, leaving the balance of 7*l.* 9*s.* 9*d.* But the agenda paper of that day contained accounts presented for payment on behalf of the school amounting to 18*l.* 0*s.* 6*d.* In the absence of Mr. Simpson, his co-auditor, Dr. Burnes had gone through the accounts with him. He would second Mr.

Hodgson's motion because he did not wish that the members of the Council should be surcharged any deficiency that should accrue in respect of the school. He did not suppose that any member of the Council would object to subscribing for the support of the school. He should not.

Mr. HODGSON: Nor should I.

The PRESIDENT agreed that in money matters one could not be too plain. At the same time the members of the Council should recollect that they committed themselves to the school twelve months ago. If the Privy Council had not replied to their communications about the school, that was not their fault. He did not think it would be fair for them at the end of twelve months to turn round and say that they would not be responsible for the school. If at the end of the twelve months they should wish to reverse that decision, and Mr. Hodgson should send in his notice of motion to put it on another basis, well and good. Since the Council met that day, 6 guineas had been handed in in connection with the school, and there was also a sum of 11*l.* 0*s.* 6*d.* due by candidates.

Professor TICHBORNE said the 6 guineas would be almost all profit, and some expenses had been charged which were not entirely incurred for the school. The school was an excellent idea, and he had very little doubt that it would ultimately pay very well. At the same time it would be desirable to have a regular School Committee to work it.

The VICE-PRESIDENT said he was very sorry that this matter had been brought forward in the way it had been. Mr. Brunker wanted to upset the working of the Council. They had got on very well during the past year, and the licentiates were satisfied with what the Council had done. In this matter there was a certain amount of attacking people in the dark. Mr. Hayes had charged the Council with doing what was illegal. But Mr. Hodgson himself was a party to the act, for he was a member of the committee that recommended the establishment of the school. The Council thought the matter fully over, and were told that it should be submitted to the Lord Lieutenant. They were of opinion, however, that they need not; and if Mr. Hayes's present contention were right, he should have got the consent of the Privy Council to the payment out of the funds of the Society for the bookcase that stood in that room and the benches in the adjoining one. He challenged Mr. Hayes to show under what provision of the Act they were bound to go to the Privy Council for leave to establish a chemical school. But they did write to the Privy Council asking them if it was necessary to have their authority for the purpose. They had not said that it was. The school had been a success; and now, because there was no other way of upsetting the Council, they were to be struck in the dark at the annual meeting by trying to upset the accounts. He hoped that at that meeting the licentiates would show the respect they had for the President by carrying the accounts in spite of the auditors. The Privy Council had directed their attention to the words "generally for all such matters as may be necessary for the execution of the Act" in sub-section 8 of clause 16 of the Act of 1875, and said that if they could not establish the school under that sub-section they did not know what they could do it under. As to the accounts of the school being mixed up with those of the Society, Mr. Hodgson was misinformed on that point. Mr. Ferrall was told that the accounts were to be kept separately. If Mr. Hodgson was not prepared to accept the responsibility of the school, he had no right to accept profits from it and put them into the funds of the Society.

Mr. HODGSON: That's the very thing I want you not to do.

The VICE-PRESIDENT: Do you mean to say that it is to be the Pharmaceutical Society of Ireland's school, but that any profit that is made by it is to be given away?

Mr. HODGSON: Do what you like with it, but it should not come into the funds of the Society.

The VICE-PRESIDENT: You can do with the funds of the Society all things necessary for carrying out the Act. It was found that if we did not start the school we might as well give up trying to work the Act.

Mr. HODGSON said he would give notice of the motion he had read.

The VICE-PRESIDENT: Well, I shall object to the school being carried on except as the school of the Society, its profits going into the funds of the Society; and if there be



a deficit—which I don't believe—we shall bear the loss, and if necessary go to the Privy Council about it.

Mr. HAYES denied that either he or Mr. Hodgson had been led by Mr. Brunker in the matter. They had had no communication with him. He (Mr. Hayes) opened Mr. Brunker's letter in the presence of Dr. Burnes, and they both read it together, and decided that if they took any other course than that which they had taken they would be doing wrong as auditors.

The VICE-PRESIDENT: Mr. Hayes says we have been acting illegally. Let him produce his authority for that.

Mr. HODGSON: I have nothing to do with whether it is legal or illegal. I have given my notice of motion; and I believe the appointment of a committee will facilitate the working of the school. I object to Mr. Wells making these statements that are not founded in fact. Nobody wants to throw over the school.

Dr. BURNES said he was greatly surprised at finding that Mr. Brunker intended to take an opportunity of giving them a stab in the back. If the approbation of the Privy Council should not be given, the members of the Council could make up the deficiency, and he (Dr. Burnes) would pay 10 guineas if necessary. After some further discussion, Dr. Burnes said: Mr. Brunker almost threatens legal proceedings against the auditors, and in the face of that I went on with it and said, "Let him do his utmost."

Mr. MCCORMACK said it was very strange that the attacks on the school had been hitherto made by ex-Presidents of the Society.

#### NEW MEMBERS.

The following gentlemen were elected members of the Society:—Mr. Christopher Garry, L.P.S.I., Greville Street, Mullingar; Mr. Robert M. Lees, L.P.S.I., Main Street, Wicklow; and Mr. James Aloysius Walsh, L.P.S.I., 30 Westmoreland Street, Dublin.

## Legal Reports.

#### BEECHAM'S PILLS.

ON Wednesday Mr. Marten, Q.C., applied to Mr. Justice Vaughan Williams, sitting as the Vacation Judge, on behalf of Mr. Beecham, proprietor of Beecham's Pills, for an injunction to restrain Mr. William Henry Parker, chemist, of Nottingham, from selling, or offering for sale, as the manufacture of the plaintiff, any pills not manufactured by him. He understood (Mr. Marten said) that Mr. Parker now appeared by counsel, and would submit to an order until the trial or further order in the terms of the notice of motion. Counsel for Mr. Parker rose and said that was so, and his lordship ordered accordingly.

Subsequently Mr. Marten said a telegram had been read from Mr. Parker, consenting to treat this motion as the trial of the action, making the injunction perpetual, and to pay 60*l.* to the plaintiff as damages and costs; and he asked his lordship to vary the order accordingly. This was done.

#### THE LAW AS TO DISSOLUTION OF PARTNERSHIPS.

ON Thursday the case of *Leach v. Stratford & Mullett* came on for hearing before Mr. Commissioner Kerr, in the City of London Court. The plaintiff, Mr. H. P. Leach, 64 Mark Lane, sued Messrs. Stratford & Mullett, Chapell Street, Hull, to recover 7*l.* 10*s.* 11*d.* for chemicals sold and delivered. The defendants pleaded payment. Mr. Lamb, the plaintiff's solicitor, said the defendants had produced a receipt of payment, and the only question his Honour would have to try would be whether or not the receipt was a good one. Mr. Smith, the defendants' solicitor, then called one of his clients, who said that Mr. Hicks, of the firm of Blackett, Hicks & Co., called upon him last year, and witness gave him an order for certain chemicals, &c., used by him in his business to the value of 7*l.* 10*s.* 11*d.*, on the terms that the account was to be paid on the "following journey." The "return journey" was never made, and the next he heard of the matter was an application in writing for payment. He then sent the money, and subsequently received the receipt produced. He did not know by whom it was signed. Cross-examined, he said the money was paid on July 30, and he

did not receive a receipt until August 15. In the interim he made several applications for a receipt, and each time addressed his letter to the firm. He had never seen a notice of dissolution of partnership in the *Gazette*. Mr. Lamb put in a copy of the *Gazette*, containing a notice of dissolution of partnership between the firm of Blackett, Hicks & Co., and he submitted that this entitled him to judgment, as the payment made by the defendant was after the date of the dissolution, which, being duly notified in the *Gazette*, must be taken to be a notice of the same to all creditors and debtors. The learned Judge said it was new to him if a mere notice of dissolution in the *Gazette* could be construed into a notice to all debtors and creditors. He was convinced that the action was a *bona-fide* one, and that the defendants had paid the money perfectly *bona fide*. If the plaintiff could show that a notice in the *Gazette* was a notice to all debtors and creditors, he could have a new trial; but in the meantime judgment would be entered for the defendants.

## Gazette.

#### PARTNERSHIPS DISSOLVED.

Beach, J., & Horton, J. (under the style of J. Beach & Co.), Tipton, condiment and farinaceous-food manufacturers.

Fisher, H. A., & Fisher, F. W. (under the style of Fisher & Sons), Ramsgate, chemists and druggists.

Lewis & Ward, Ellesmere, physicians and surgeons.

Noble, A., Brown, J., & Brown, W., Whitthaven, paint, oil, grease, and soap manufacturers; as far as regards W. Brown.

Peat, W. H., Figgis, S., Peat, A. R., & Devitt, A. (under the style of Lewis & Peat), Mincing Lane, City, colonial brokers; as far as regards S. Figgis.

Reld & Alexander, Southsea, surgeons.

#### THE BANKRUPTCY ACT, 1883.

Bennett, Samuel, Tunstall, drysalter. R.O.—Adj.

Diggie, Charles Frederick, Oldham, surgeon. R.O.

Huntley, Robert Elliot, Wallsend, surgeon. Adj.

#### EXTRACT FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deed of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision in the Act, making any of these arrangements binding upon dissenting creditors.

Dowson, Joseph, 65 Warwick Terrace, Warwick Road, Batley, chemist's assistant. Date, September 29; filed, October 4; unsecured liabilities, 2,815*l.* 10*s.* 2*d.*; creditors fully secured, 25*l.* Composition of 3*s.* in the pound on respective debts, and 20*s.* in the pound on respective law costs, payable forthwith.

	£	s.	d.
Bourne, Johnson & Latimer, London .. ..	32	6	3
Brown & Park, London .. ..	12	14	10
Chilton, —, Darlington .. ..	23	3	0
Coulthard, John, Hull .. ..	42	10	0
Dowson, Mrs. Jane, Dewsbury .. ..	1,767	10	7
Dowson, Ellen, Batley .. ..	129	0	0
Geddes, William, Oldham .. ..	10	0	0
Goddon, —, London .. ..	32	0	0
Holt, William, Pateley Bridge .. ..	10	10	0
Kieth, A. S., North Ormesby .. ..	37	0	0
Maw, Son & Thompson, London .. ..	35	8	7
National Provincial Bank of England (Limited), London .. ..	470	6	11
Provincial Credit Bank, Leeds .. ..	35	6	10
Parsonage, Septimus, Liverpool .. ..	14	0	0
Sowerby, Richard, Middlesborough .. ..	14	3	4
Swinburn & Son, Darlington .. ..	29	11	9
Taylor, Gioson & Co., Newcastle .. ..	33	14	4
York Herald Newspaper Company (Limited), York .. ..	15	0	6



## Personalities.

MR. F. SHIRTLIFF, 72 Archway Road, London, N., has disposed of his business to Mr. G. C. Owen.

MR. BULLEY has removed his pharmacy from 26 High Street to 9 East Southernhay, Exeter.

MR. WILSON STACY, who has for several years been engaged in the business, has been taken into partnership by Messrs. Corbyn, Stacy & Co.

MR. FRANK G. PLANT, who for thirteen years has been in business at Gorton, near Manchester, has removed to Oakfield, Romiley, near Stockport.

MR. T. W. WILSON, having to vacate his premises at 7 Bootham, York, in consequence of street improvements has commenced business at 2 Victor Street, Thornbury, Yorkshire.

MR. CRABB GILLET, who has been for thirty-six years in business on the Pear Hill, Cambridge, as a chemist and druggist, has retired into private life. He is succeeded by his nephew, Mr. H. J. Parson, of Hull, who commenced business last week.

MR. J. PIKE, chemist, of Newcastle, has been recognised by the City and Guilds of London Institute as a teacher in photography. As the holder of some twenty medals, and certificates for theoretical and practical photography, chemistry, physics, and drawing, Mr. Pike may be considered fairly entitled to the distinction just conferred upon him.

A BILL-HEADING comes to us from a correspondent who thinks it suggestive. We give a part of it only—viz.: "A. Stangroom, grocer, draper, chemist, druggist, tea-dealer, clothier, stationer, and ironmonger, Whissonsett. Patent medicines, family mourning, boots and shoes, bonnets and stays," &c. The sharp corners of the titles protected by the Pharmacy Act are well rounded off by half a dozen others; but this will not soothe the conscientious registrar.

## Trade Notes.

A REVISED illustrated price-list of druggists' sundries and patent medicines has just been issued by Messrs. May, Roberts & Co.

"DERMATOS SOAP," made by Messrs. F. James & Co., of 61 Mark Lane, is a neutral soap, very emollient, and quite soluble. The makers are cultivating the favour of medical men.

MESSRS. HAMMANT & WOLSTENCROFT, agents for Barton's Exterminator for Rats and Mice, inform us that the wholesale price for this article will be raised after January 1, 1891, to 96s. per gross.

MESSRS. THOMPSON, WALTERS, HOLE & CO. (LIMITED) have purchased the recipes and goodwill of Beddow's Pills and Powders, for which they have been wholesale agents for some years.

MESSRS. SEABURY & JOHNSON, of London, New York, and Hamburg, have just issued a new and useful price-list of the plasters manufactured by them, together with antiseptic gauzes, bandages, and other surgical appliances.

ONE of our staff complimented Messrs. Blondeau & Co. the other day on the attractiveness of their show-card, as well as on the extent to which it appears to have been circulated, when the firm said they would be much obliged if we would let chemists know that they will be happy to send them new cards to replace those which have become shop-worn.

M. MARIANI claims that his wine (Vin Mariani) has never produced cocaineism. The *Lancet* remarks: "This is an important point, and is probably one of those examples in which the alkaloid in its state of natural combination differs in some respects in its physiological action from the free alkaloid chemically prepared."

MR. HENRY C. QUELCH, of Ludgate Square, is bringing "Bailey's Pure Concentrated Clam Juice" before his customers. It is put up in pint tins, and offers a very easy means of preparing those American delicacies, clam broth, clam chowder, clam fritters, clam night-cap, and clam in other combinations. The clam is regarded in America as a peculiarly nourishing food, and it is claimed that it is presented in this form in the most digestible manner.

"LUCILLINE."—This is the name which Messrs. Bosshardt & Wilson, of Philadelphia, U.S.A., give to their make of petroleum jelly, which is being offered in this country through their agents, Hatrick & Co. (Limited), 31 Snow Hill, E.C. We have examined a sample of the "A A" brand, which is the best of the four qualities made by the makers. This "Lucilline" is a translucent and non-granular jelly, free from bloom, and of a pale amber colour. It is free from petroleum odour, and although it is, as far as tests can show, a homogeneous jelly—i.e., not a mixture made from suitable proportions of hard paraffin and heavy petroleum oil—its melting-point is high—viz., 42° C. This is a characteristic difficult to attain with natural jellies, and it gives "Lucilline" a distinction which pharmacists will appreciate. The jelly is put up in large tins for dispensing use, and beautifully illuminated ones for retail. The other brands are suitable for special purposes, "C" being the veterinary brand.

## NEW COMPANIES.

CHEMICAL PATENTS COMPANY (LIMITED).—Capital, 2,750l., in 1l. shares. Objects: To carry on business as patentees of inventions.

SCOTT DRUG COMPANY (LIMITED).—Capital, 100l., in 1l. shares. Objects: To carry on the business of chemists and druggists at 84 Park Street, Camden Town. Registered without articles of association. The following are the shareholders:—Arthur Blackmore, 84 Park Street, Camden Town, 49 shares; Edward Blackmore (clerk), William Blackmore (estate agent), H. Blackmore, R. Blackmore (haberdashery), and Phoebe A. Blackmore, 10 shares each; and R. H. Bathe, chemist and dentist, Brighton, 1 share.

JOINT-STOCK COMPANIES.—That the system of joint-stock trading is growing in favour is evidenced by the figures recently published by Mr. Purcell, Registrar of Joint-stock Companies. It appears that 2,788 companies were registered in the United Kingdom in the year 1889. Of these all but 210 were registered in London. The formation of limited companies in England shows a notable increase from year to year. In the past ten years, with the exception of 1884 and 1885 (in each of which there was a slight falling-off as compared with the year immediately preceding), the numbers have steadily increased from 923 in 1879 to as many as 2,578 in 1889. Curiously enough, the stamp-duty of 1l. per 1,000l. on the nominal capital, introduced by Mr. Goschen in his Budget of 1888, has in no way checked joint-stock operations, although such an outcome was generally anticipated. It would appear that, whilst the nominal capital of registered companies in 1887 (the year immediately preceding the imposition of this tax) was 170 millions only, it rose in the year 1889 to upwards of 241 millions, thus yielding close upon a quarter of a million for Revenue purposes. The total amount now estimated to be invested in joint-stock enterprise reaches the enormous figure of 775 millions of pounds—a sum as nearly as possible the equivalent of that invested in British railways. This amount is distributed as follows:—England, 705 millions; Scotland, 52 millions; and Ireland, 17 millions. There is also the comparatively small sum of 386,000l. given as being invested in twenty-four companies that have been registered in Truro, the seat of the Stannaries Court.



## BRITISH PHARMACEUTICAL ASSOCIATIONS.

THERE has never been, so far as we are aware, any census taken of the Pharmaceutical Associations in the various towns of Great Britain. For the reasons given on September 27 such a census ought to be useful, and during the past two weeks we have received from various gentlemen, many of whom are officially connected with the Associations, particulars which have been used as the basis of this article. Our inquiry has extended to all known associations, and to those towns in Great Britain which have been visited by the British Pharmaceutical Conference. Here we give an instalment of the bare facts, and elsewhere comment upon them.

## ABERDEEN.

There are two associations in the granite city. The *Aberdeen and North of Scotland Society of Chemists and Druggists*, which is the oldest provincial association in the kingdom, has at present a membership of 31, the subscription being 21s., or more or less, as required. The society meets in its rooms, 21 Bridge Street, Aberdeen, monthly, during nine months of the year, to discuss subjects having a bearing upon the business. The rooms contain a library of 300 volumes, museum of materia medica, lecture hall, and chemical laboratory (five benches). The present office-bearers are:—President, Mr. John Johnston; Vice-President, Mr. J. P. Kay; Secretary, Mr. A. Strachan; Treasurer, Mr. J. Paterson; Curator, Mr. J. Clark; Librarian, Mr. J. Cruickshank; and Auditor, Mr. W. Reid. The *Aberdeen Chemists' Assistants' and Apprentices' Association* is a body of a few years' standing, with 66 names on the roll. Subscriptions, 2s. 6d. for assistants and 1s. 6d. for apprentices. Meetings are held once a fortnight in North Silver Street Hall, during the winter months, whereat essays, &c., on pharmaceutical and general subjects are read by the members. The present office-bearers are:—Hon. President, Mr. James Clark; President, Mr. George Cowie; Vice-President, Mr. John McWilliam; Secretary, Mr. William Falconer, 36, Rosemount Place; Assistant-Secretary, Mr. Alexander G. Milne; and Treasurer, Mr. D. Macdonald.

## ARBROATH, N.B.

At one time there was an *Assistants' Association* here, but it died out four or five years ago, "after doing good service for a dozen years."

## BATH.

This town has the honour of having been the first host of the Pharmaceutical Conference, which met there in 1864 and again in 1888. But there is no association in the town. There was once, and the organisation succeeded in bringing forth a price-list. Two years ago, after the visit of the Conference, an attempt was made to resuscitate the association; Mr. Wilson was made president, and Mr. Hutton honorary secretary. Nine chemists only out of thirty could be induced to associate, and at a meeting which was held only three attended. The promoters of the association had to reluctantly abandon their efforts. The books given by the Conference were presented to the Royal Library and Scientific Institute, on condition that they are to be at the service of chemists at any time.

## BIRMINGHAM.

The *Midland Counties Chemists' Association* is one of the most prosperous in the kingdom. It had the names of 163 members and associates on the roll at the annual meeting in May, and there was a cash balance of over 15*l.* in hand. The meetings are both scientific and social, and the council of the association considers questions which affect the trade commercially—in short, "benevolence, education, and protection" are the association's features. Its library is deposited in rooms granted to it by Mason's College, where the scientific meetings are held; classes for instruction in Minor subjects are provided, but they have not been taken advantage of for some years. There is a cricket club in connection with the association, and an annual ball is held, which is very popular. Amongst the office-bearers are Mr. Alfred Southall, president; Messrs. W. H. Pullin, Leamington, and Charles Thompson, vice-presidents; and Mr. F.

H. Alcock, Broad Street Corner, Birmingham, hon. sec.; with a council of 19 members, a treasurer, librarian (Mr. G. E. Perry), and auditors. The association holds its meetings once a month from October to May, generally on the second or third Tuesdays.

## BRADFORD.

The Conference met here in 1873, and there was a chemists association, but we fail to get any information about it now.

## BRIGHTON.

The *Association of Pharmacy* here partakes largely of a social character. The only meetings which can be called "regular" are the annual meeting in the spring, the annual dinner, one or more excursions, and a ball. The last-named was instituted a year ago. We have no information as to the membership, but the association had 24*l.* 16s. in hand at the end of the last financial year. The association has a library, including the books presented by the Conference, which met at Brighton in 1872. The books are kept in the chemical laboratory of the School of Science and Art, and chemists and apprentices may consult them at any time. The association awards prizes to the chemistry students at the above-mentioned school. The present office-bearers are Mr. W. D. Savage, jun., president; Mr. William Cornish, treasurer; and Mr. Marshall Leigh, hon. secretary.

## BRISTOL.

The *Bristol Pharmaceutical Association* has thirty-three subscribing members, and all the assistants and apprentices of these are ranked as associates without fee. The association has occasional meetings for discussion, &c., a library, and museum. Educational matters are what the council chiefly consider, and associates are encouraged to attend the classes of the University College, "which, as regards chemistry and botany, are all that could be desired." The office-bearers are Mr. J. W. White, president; Mr. John Stroud, treasurer; Mr. G. F. Schacht, hon. sec.; and Messrs. Allen, Berry, Kean, Towerzey, and Warren, members of council.

## CARDIFF.

This is the town in which the Conference will meet next year, but there is no association of chemists in it. They think of forming one, however.

## DOVER.

The *Chemists' Association* of this town has a membership of eleven, and meets at the Apollonian Hall on the second Wednesday of the second month in each quarter at 9 p.m., the object being to promote concerted action on matters affecting the common interests of the members and a friendly feeling amongst them, as well as the advancement of pharmacy. President, Mr. H. Peake, J.P.; Secretary and Treasurer, Mr. R. M. Ewell, 37 Town Wall Street, Dover.

## DUNDEE.

After the Pharmaceutical Conference met in this town in 1867, an association of chemists was formed, and had meetings for discussion of pharmaceutical topics, promotion of education, &c., for several years; but, as an active organisation, it has long ceased to exist, although when any extraordinary occasion arises it is possible to wake up the executive. The persons to move on such occasions are the President, Mr. Charles Kerr; Treasurer, Mr. F. W. Young; Secretary, Mr. James Russell, 97 Nethergate; and members of Council, Messrs. A. B. Anderson, W. Doig, and D. H. Ferrier—whose names have appeared in the local directory as such for the past ten years or more. A *Chemists' Assistants' and Apprentices' Association* was started in the city last year, and has on the roll the names of twenty-six honorary members (including most of the local employers) and forty-five ordinary members. There is a cash balance of 27*l.* on the association's books. The association meets every Thursday, at 9 p.m., at 74 Commercial Street—this during the winter; in the summer botanical excursions, &c., are held. The winter meetings are of the usual pharmaceutical character, and some are musical and social. The office-bearers are an honorary president and three honorary vice-presidents, with an acting executive, consisting of—President, W. Edwards



Vice-president, G. Little; Secretary, R. M. Lindsay, 150 Ann Street; Treasurer, A. A. Adam; and members of Committee, J. Forsyth, J. A. Kinnear, W. Mair, and C. T. Duncan.

#### EDINBURGH.

The *Chemists' Assistants' and Apprentices' Association* has the names of about 100 members on the roll. The subscriptions are 3s. for masters and assistants, and 1s. 6d. for apprentices. The members meet twice or three times a month in the house of the Pharmaceutical Society, 36 York Place, from October to April, "for the discussion of matters relating to their profession." There is a *conversazione* in the course of the session, but no other social gathering. Six botanical excursions are held in the summer. The association encourages education by awarding prizes to the most competent apprentices competing in examinations on pharmaceutical subjects. The office-bearers are: Mr. Donald McEwan, president; Mr. James Blenkiron, vice-president; Mr. John Findlay, 78 Queen Street, secretary; Mr. Alex. Leys, assistant secretary; Mr. J. H. Hoscason, treasurer; and seven members of the committee. Also a Prize Committee.

A *Price-list Committee*, which was the active representation of an association of all the chemists in Edinburgh, used to exist, its objects being to promote uniformity in dispensing and retail prices, and to publish a price-list. It was exceedingly successful in this until seven years ago, when the advent of the "cutters" played havoc with prices, and uniformity no longer reigns. Mr. J. Ewing, 52 North Bridge, was the convener of the Price-list Committee.

The North British Branch of the *Pharmaceutical Society* holds evering scientific meetings at 36 York Place, during the winter months.

#### EXETER.

Whether or not there was an association here in 1869, when the Exeter Conference was held, we have failed to discover, but we are informed that there is an *Exeter Association of Chemists and Druggists* now in its infancy. The association consists of chemists and druggists in business, and qualified managers, the objects being the promotion of a friendly and united disposition amongst the members; the adoption of measures for advancing the interests of the trade and preventing unfair competition from outsiders, or amongst the members themselves. It is proposed to hold quarterly meetings on the second Wednesdays of January, April, July, and October. Next Wednesday the members will meet to discuss "prices charged for poisons," and "early closing." The number of members is not yet known. The subscription is 5s. yearly. The office-bearers are: Mr. H. Gadd, president; Mr. J. H. Lake, vice-president; Mr. P. T. Rowsell, 187 High Street, honorary treasurer and secretary; and Messrs. Bartlett, H. W. Harris, E. Lemmon, G. Stocker, and J. W. Webber, members of committee.

#### GLASGOW.

The *Chemists' and Druggists' Association*, which welcomed the Conference to the city in 1876, and occasionally sends delegates to the Conference, is in a state of suspended animation, and has been for several years past. Its library is now used by the *Chemists' Assistants' Association*, which was formed a year or two ago, the ruins of a similar junior association being worked into it at the time. The association meets periodically during the winter months, and has papers from the members, and addresses and lectures from honorary members and science teachers; also occasional social meetings. Mr. James Robb is acting president; Mr. Thomas Harley, secretary; and Mr. George Robertson, librarian.

#### HALIFAX.

We rarely hear of the *Halifax Chemists' Association*; the last time was in 1884, when it publicly discussed the Government Poisons Bill, and added its protest to others from various parts of the country against that abortive measure. But the association is still alive, and consists of 15 members, who have recently met when necessary at the Old Cock Hotel; but in future they will meet monthly for the consideration of matters of trade interest, and also for the promotion of a friendly feeling amongst themselves. The association has "a comfortable balance" at the bank, a small library, and it encourages apprentices and assistants

to attend the science classes at the Mechanics' Institute. Mr. William Dyer, president; Mr. Councillor Jessop, treasurer; Mr. Robert Brook, librarian; and Mr. J. B. Brierley (4 Halsey Hill), secretary. The annual meeting and supper of the association will be held within a fortnight.

#### HASTINGS.

The Pharmaceutical Conference met in Hastings in 1884. No local association exists.

#### HAWICK.

The association which used to hold meetings here sends a delegate to the Pharmaceutical Conference meetings, but this is all that it has done for some years, and it happens sometimes that the delegate does not turn up.

#### HULL.

The *Hull Chemists' Association* sent delegates to the Pharmaceutical Conference this year, but we have failed to ascertain how the association stands locally, or its strength financially and numerically. The last secretary was Mr. C. B. Bell.

#### INVERNESS.

There are seven chemists in the capital of the Highlands, and they have formed themselves into a Chemists' Association (Mr. MacRitchie, president, and Mr. Bethune, secretary) for looking after their interests. They meet quarterly, or oftener if necessary. The *Chemists' Assistants' and Apprentices' Association* has 35 members on the roll. We understand this number to include masters and medical men of the town, who are honorary members. The association is mainly educational, having twice-a-week classes in chemistry, materia medica, and pharmacy; but it also holds meetings monthly during the winter for reading and discussing papers. Its income last year was over 25*l.* and the expenditure 23*l.* The next session begins October 13. Mr. MacRitchie is president of the association, and Mr. Andrew Rose (13 Castle Street) secretary.

#### LEEDS.

The *Leeds Chemists' Association* has the names of thirty members and twenty-five associates on the roll. Financial position, "satisfactory." Work, chiefly educational; but meetings are held now and then to discuss trade topics. These meetings are held at the Church Institute, Albion Place, where the library of the association is always open to members and associates. Lectures on pharmacy, pharmaceutical chemistry, and materia medica are given every third year, and the association encourages students to attend the Yorkshire College of Science. Mr. F. W. Branson is hon. sec. of the association. A correspondent informs us that "in the early history of the United Society of Chemists and Druggists, Leeds was visited by the energetic secretary, Mr. Buott, who convened a meeting of the trade, and recommended the formation of a local committee for the purpose of discussing matters relating to the society and all questions of interest to the trade generally. A committee of the whole trade then represented was formed, and Mr. E. Yewdall was chosen to be hon. secretary. This committee held its meetings monthly; but, as the interest began to wane in about twelve months, the hon. secretary had an interview with Mr. Reynolds, the local secretary of the Pharmaceutical Society, with the object of forming a local society on neutral ground. As a result of this conference the Leeds Chemists' Association was formed, the first meeting being held December 22, 1862. The society had a healthy life for some years, during which its educational work was vigorously carried on, and a small library and collection of materia-medica specimens commenced. A change of hon. secretaries and the attractions of newer educational institutes eventually caused the interest in the society to flag, and, beyond keeping a room where students could meet in the evenings, little was done to attract the members until Mr. F. W. Branson was elected hon. secretary, when the work has revived, and it is probable that the visit of the British Pharmaceutical Conference will have the effect of stimulating the members and associates to further activity."



## LEICESTER.

The *Leicester and Leicestershire Chemists' Association* evolved, in 1886, from an assistants' and apprentices' association which for a dozen years previously had been doing work quietly with the aid of employers. Present strength, twenty members and forty associates (assistants and apprentices). Subscriptions, 10s., 6s., and 4s. per annum, according to grade. Balance at end of last financial year, 15l. 2s. The work done is largely educational, and is kept up with regularity and success. Meetings for the discussion of trade subjects are held occasionally, also social gatherings, at St. George's Chambers. The office-bearers are: Mr. J. G. F. Richardson, president; Messrs. G. Woolley and W. Rowe, vice-presidents; Mr. W. Thirlby, treasurer; and Mr. J. J. Edwards, 43 The Newarke, secretary; with Messrs. R. Broof, E. H. Butler, H. Evans, G. Weall, and G. Ward as members of the committee.

## LIVERPOOL.

The *Liverpool Chemists' Association* is the only active survivor of a large number of provincial associations which the late Jacob Bell was instrumental in forming. The association is now in its 42nd year, and consists at present of 14 honorary and 107 ordinary members. Cash in hand, 20l. Meetings are held monthly during the winter for "the advancement of chemistry and pharmacy and the trade interests of persons engaged in the same." This object is attained by verbal communications, papers, and debates, practical pharmacy being generally well looked after, and topical subjects of trade interest especially receiving prompt attention. Reports of all the meetings are regularly given in this journal. The meetings are held in the Royal Institution, where also the library and museum of the association are. The association has affiliated to it the Liverpool School of Pharmacy. The present office-bearers are: President, Dr. Charles Symes; Vice presidents, Messrs. M. Conroy and T. F. Abraham; Honorary Treasurer, Richard Parkinson; Honorary Secretaries, J. Bain (122 Robson Street) and J. S. Ward (Liverpool School of Pharmacy).

The *Liverpool Pharmaceutical Students' Association* has been in existence for two years, and has done good work in that time. We have not heard of the arrangements for the ensuing session, but at the end of the last one the financial position of the association was good. The meetings are held in the Temperance Hall, Hardman Street. Mr. Harold Wyatt (223, Stanley Road, Bootle) is president, and Mr. Frank Walker secretary.

## LONDON.

The *Chemists' Assistants' Association* has headquarters at 103 Great Russell Street, W.C., where meetings are held weekly from October to April. The association has 44 patrons and nearly 200 members. Income last year, 138l.; expenditure, 135l. This association was established in 1876 for the promotion of intercourse amongst chemists' assistants, and the discussion of subjects tending to the welfare of all interested in pharmacy. Consequently, musical and social meetings are prominent in the programme, and about a dozen evenings are devoted each winter to scientific papers, most of them by men and women notable in science. A *conversazione* is held in the course of the session. The association offers prizes for the encouragement of research and progress in pharmacy. Its transactions are annually published in book form. The principal office-bearers this session are Mr. A. Campbell Stark, president; Messrs. F. A. Rogers and W. Lloyd Williams, vice-presidents; and Messrs. E. Richards and C. W. Seccombe, hon. secretaries.

The *West London Chemists' Association* was recently formed for the purpose of promoting friendly relations amongst the chemists in that district, and taking united action in regard to matters of importance affecting the trade. The first thing the association did was to appoint delegates to the Pharmaceutical Conference, and since then a meeting has been held, but as yet the preliminary arrangements have not been settled. Mr. Matthews, 1 Queen's Gardens, Hyde Park, W., will doubtless supply information to inquirers.

## MANCHESTER.

The *Pharmaceutical Association* meets on the second Wednesday of every month, at 7.30 P.M., from October

to March, for the "protection of legitimate trade interests and the advancement of pharmacy." Meeting place, rooms of the Chemical Club, Victoria Hotel. The association has plenty of money in hand, but in other respects its position is somewhat doubtful, its popularity having waxed and waned periodically. There was a meeting on October 8 for the election of office-bearers (see report on page 505). The acting secretary at that date was Mr. Harry Wilson, the Laboratories, Knowsley Street.

## NEWCASTLE-ON-TYNE.

The *North of England Pharmaceutical Association* has a museum and rooms at the College of Science, Newcastle, and promotes pharmaceutical education by classes held there. The association also sends delegates to the Pharmaceutical Conference, but as to its financial and numerical strength and trade or professional meetings, we have failed to get information from official sources. The secretary of the association is Mr. Ford, care of John Ismay and Co., wholesale druggists, Newcastle. The *Chemists' Assistants' and Apprentices' Association* has only been in existence for a year, but the first session was a good one, and ended with a cash balance in hand. Amongst the present office-bearers are Mr. Fred. Park, president; Mr. M. Bell, assistant secretary; and Mr. Peter Bell (11 Grey Street), treasurer.

## NORWICH.

There exists now no Norwich chemists' association, nor has there been any for many years. Conference visited the town in 1868.

## NOTTINGHAM.

The *Nottingham and Notts Chemists' Association* was founded in 1868, and has continued to work uninterruptedly since. It has 58 members and 36 associates, and its objects are similar to those of the Birmingham and Liverpool associations; but it has been particularly successful in promoting education, arrangements in regard to this having been come to with the University College authorities. The association has the use of the Sunday School Institute, Shakespeare Street, on Friday evenings, and here the library of 300 volumes may be consulted. With the exception of a social gathering in December and an annual meeting in May, no stated meetings are held, but when a matter of exceptional importance arises the members are called together. The financial position of the association is good. The office-bearers are:—President, Councillor FitzHugh; Vice-President, Mr. W. H. Parker; Hon. Treasurer, Mr. J. Wilford; Hon. Secretary, Mr. W. Gill, 183 Radford Road; Council, Messrs. C. A. Bolton, A. E. Beilby, J. F. Dennis, T. B. Fletcher, A. Middleton, F. R. Sergeant, G. F. Savage, and W. Widdowson.

## OLDHAM.

There is a *Pharmacy Students' Association* here which meets on Tuesday evenings (October to May) for the purpose of reading for the Minor, and every alternate Thursday evening the members meet to read and discuss short papers. As to the strength of the association, where it meets, &c., we have no information. Mr. John E. Wood is the secretary.

## PLYMOUTH.

There was once a *Chemists' Association* here, but "it has ceased to exist as an active body for many years." Conference year, 1877.

## PRESTON.

Until 1881 there were a junior and senior association here, but in that year the two were amalgamated, the Pharmaceutical Students' Association handing their balance of nearly 14l. to the *Preston Chemists' Association*. Since then we have heard nothing of it, and now we are informed that "the association died of inanition after a most useful career." The career consisted in promoting science classes affiliated to South Kensington, and in social gatherings, wherein it was successful; then it "dabbled in trade politics, and died."

## SHEFFIELD.

The *Sheffield Pharmaceutical and Chemical Society* has premises at New Surrey Street, where meetings are held during the winter months, as well as classes on the subjects



of the Minor examination. The association is well supported by the chemists in the town, and generally discusses topics of trade interest as they arise, while scientific papers are also read at the meetings. It is decidedly successful in its school of pharmacy, now in its sixth session. The office-bearers are:—Mr. J. H. Bradwall, president; Messrs. G. A. Grierson and R. Watts, vice-presidents; Mr. G. T. W. Newsholme, treasurer; Mr. C. O. Morrison, hon. secretary, 137 West Street. The council: Messrs. Eardley, Ellinor, Fox, Learoed, Preston, Rhoden, and Ward.

#### SOUTHAMPTON.

Conference year, 1882. No association.

#### SOUTHPORT.

Conference year, 1883. No association.

#### SWANSEA.

Conference year, 1880. No association.

#### YORK.

Conference year, 1881. No association since 1888, when the office-bearers were Mr. Wheldon (secretary), Mr. Snowdon (treasurer), who with Mr. Place constituted the committee. Classes were held in chemistry by Mr. Place, in materia medica by Mr. Snowdon, and in botany by Mr. Wheldon; but the apprentices did not give the teachers much encouragement, nor did the masters, as a whole, take much interest in them. Occasionally an evening meeting for paper-reading was held, but for a long time the chemists of the town have taken no active interest in pharmaceutical affairs. The society left a legacy which is now worth about 20*l.*, and is available for active work when that is started.

### SHEFFIELD SCHOOL OF PHARMACY INAUGURAL MEETING.

THE sixth session of this school, now conducted in the Society's rooms, New Surrey Street, was opened on Thursday evening. The chair was occupied by the President, Mr. J. H. Bradwall. An inaugural address was delivered by Mr. Martindale, who also distributed the prizes gained by the students last session, viz.:—

Chemistry .. ..	{ 1st. F. Peet. 2nd. H. G. Williams.
Practical Chemistry ..	{ 1st. J. Austen. 2nd. A. Barritt.
Botany .. ..	{ G. E. Dixon. 1st. J. Austen.
Materia Medica .. ..	{ 2nd. J. R. Johnson.
President's Prize for all subjects .. ..	{ J. Austen. E. F. W. Throp. } Equal.
Newsholme Herbarium Prize .. ..	{ 1st. J. Austen. 2nd. J. W. Dickson.

The lecturers' reports were read by the secretary, and showed that the classes were well attended and that the school continued to prosper. Special interest was centred in the "Newsholme Herbarium Prize." The examiners (Messrs. Humphrey and Grierson) reported that the collections sent in were both of very great merit although there was no difficulty in allotting the prize. In consideration of the high position taken by the second collection, a prize of the same value as the first was given by Mr. J. Preston. The prizes having been distributed, the President called upon Mr. Martindale to deliver

#### THE INAUGURAL ADDRESS.

I have been invited, he said, to address a few words to you on the occasion of the inauguration of your School this session. It is with diffidence that I fulfil the task, as among my sundry occupations I make no pretensions to being an orator. Still it is a duty we owe to posterity to try to implant in the minds of the rising generation the desire to emulate their fathers. Youth needs encouragement, and if those who are growing grey would occasionally narrate their experience of how amid the toils and troubles of life they have had to fight their way onward, and from what sources they received aid, many a fainting brother might take heart again.

Without being egotistical, I may refer to two such influences which attracted my attention just as I was leaving my teens, as many of you, I suppose, are now doing. One was the reading of Smiles's "Self Help," which had just then been published; the other was the Installation Address of Lord Brougham as Chancellor of the University of Edinburgh in 1860, an extract from which I wish to take as my text this evening. I may preface it by saying that as you will find life too short for you to learn all the 'ologies which might prove of use to you as pharmacists, your learning and teaching should be applied with some directness of purpose. You must first of all endeavour to obtain the necessary all-round knowledge, and afterwards individualise and pursue those portions of it suitable for your future career.

#### LORD BROUGHAM SAYS

"First of all, it is to be observed that though the acquisition of general knowledge is a primary duty, and the confining our attention within the narrow limits of one or two branches enfeebles the mind—impairing its powers—and even prevents our entire mastery of the selected branches, yet it is on every account highly expedient—indeed, all but absolutely necessary—to single out one branch as the main object of our attention. This selection is required by the impossibility of thoroughly mastering different unconnected kinds of knowledge, and the risk of distraction which passing from one subject to another occasions; the danger even of the greatest evil occurring—that of superficial learning—the rule being inflexible that no one subject must be studied without going to the very bottom, fully and accurately, of what we would learn; not proposing to ourselves, it may be, to go beyond a certain length, but as far as we profess and propose to go, becoming thoroughly master of the subject. There is, however, another reason for selecting one special branch. We must draw, as it were, a meridian line, to which all our steps in other directions may be referred. The acquisitions thus made derive additional interest from their connection with the principal and prevailing pursuit; the attention to these is kept awake, and the memory in proportion retentive, of the accessory or subordinate matters, while they lend help and illustration to the main object of our study. That object is of engrossing, though not exclusive interest; it does not preclude a moderate attention to others; but this selection, this singleness of entire absorption, is absolutely necessary to avoid the dispersion of the faculties caused by intemperate devotion to several subjects, whereof the certain tendency is to produce mediocrity in all, making ordinary capacity, even when united to great industry, yield but little return of value, and from the rarest endowments, which temperately and judiciously used might render the most important service, only obtaining the exhibition of varieties more wonderful than useful, like displays of the mocking-bird, which can warble all the notes that make the grove vocal, but has no song of her own." After drawing attention to "great lights of the world" who apparently afford a few exceptions to this rule, amongst others he mentions Priestley, whose discoveries, he says, "all but accidental, however important, were confined in their extent, and perversely misapprehended in their results, by the controversies, religious and political, which engrossed his attention through life." Brougham might also have included himself, as although he was so brilliantly versatile as an orator, author, philosopher, philanthropist, naturalist, historian, mathematician, theologian, politician, and statesman, he would have made a greater lawyer had he given his attention more closely to his profession." He then proceeds: "The same principle applies to active life as to the pursuit of science and letters. Everyone should have a special occupation the main object of his attention, to which all others are subordinate, and all more or less referable. With most men this is inevitable, because they are engaged in professional employment; but all ought to single out some pursuit, whether speculative or active, as the chief occupation of life. Nothing conduces more to comfort and happiness; nothing is a greater safeguard against the seductions of indolence, or of less innocent, perhaps not less hurtful indulgences; nothing gives a greater relish and zest to the subordinate pursuits. He who has professional duties has no right to call any time that is not earned by the discharge of those duties his own, for other occupations,



whether of relaxation or even of mental improvement. His business is his master."

This is emphatically the case in regard to pharmacists, whose daily occupations furnish them with all they need to ask for in the way of investigation. The "meridian line" on which your minds should principally dwell is chemistry. With the advances made and being made in this science, it has become a very broad lino. Pharmacy is an art requiring skill in manipulation, but a knowledge of the general laws of chemistry is essential to those who follow it. Physics and botany play their part, but the mysteries of our art are founded on chemistry; pharmacy is but chemistry applied. We have no art, as of old, in mere secrecy.

#### PRELIMINARY EDUCATION.

I assume you have all of you passed a satisfactory Preliminary Examination, and that with a fair knowledge of English, Latin, and arithmetic you know something of mathematics (Euclid and algebra) and geography, and can translate a modern language, German or French. I wish that our pharmaceutical Preliminary embraced such a field for examination, as without mathematics it is impossible to comprehend simple chemical equations. Elementary education has made vast strides since I went to school, but even yet the embryo pharmacist requires his teaching before leaving school to be applied with more directness of purpose. The rudiments of natural philosophy, of chemistry, and often of botany, ought to find a place in the education of a boy of fourteen intended to be a pharmacist. To give you an instance of the pernicious waste of time permitted and encouraged when I was a schoolboy, I remember that about the age of fourteen I had drawn about a dozen maps of Palestine, to illustrate its different geographical features and historical epochs. I was then transferred to another school, where I drew about as many maps of England. I leave you to judge of the comparative utility of these two sets of maps in my subsequent career. Certainly the bearings of London and Liverpool are of more importance to an Englishman than those of Jerusalem and Jericho. With the object of better directing the course of the pharmacist's study, the Council of the Pharmaceutical Society, with the aid of its professors and the Board of Examiners, has drawn up and lately published a schedule for the guidance of both students and teachers, which will come into force next year. This we trust will prove of service, at any rate until a compulsory curriculum comes into force.

#### TECHNICAL TRAINING.

The training you will receive in your School of Pharmacy will be by processes of experiment, observation, and induction. I need not dwell on these as regards chemistry. But many ask with regard to botany, "*Cui bono* to the pharmacist?" If for no other purpose, it brings out the powers of observation. You must observe to study botany, and not be like Peter Bell, to whom

A primrose by a river's brim  
A yellow primrose was to him  
And it was nothing more.

Children early begin to observe flowers, and this power of observation requires cultivation. The Germans, by their kindergarten system, which I am glad to say we are now following, have long taught elementary botany to even young children as object-lessons.

The advantage of training the powers of observation is well exemplified in the case of Lord Brougham in his writings on the structure of the cells of bees. He pointed out the marvellous formation of the honeycomb. When we handle a shapeless piece of beeswax we rarely think that it has been produced by the destruction of the work of a little architect who knew how to produce the greatest strength in his building from the least materials. Examine the hexagonal prisms of which the cells are formed, and you will find that the centre of the base of one is the converging point of the angles of three cells on the opposite side of the comb. You see we can get more from the busy bee than honey and wax and lessons in industry; he can also teach us architecture and other knowledge, if we observe his habits in the spirit of a Brougham, a John Hunter, a Cumming, or a Lubbock.

But not only is it necessary to cultivate your powers of observation and your reasoning faculties, you must learn a number of dry facts. Many of your dry facts are contained in the Pharmacopœia; but you will find that chemistry abounds in these dry facts, which must be laid hold of by the memory as useful knowledge to you as pharmacists. It would be useful knowledge for a painter to know how many windows there are in this room, and the dimensions of them, had he to paint and glaze them, but to us it is worthless.

One of the objects, perhaps the main object, with most of you, for which you come to this school of chemistry and pharmacy, is to obtain the knowledge necessary to pass the pharmaceutical examinations. The motive is a good one, if the examinations are right, as

#### PREPARING FOR EXAMINATION IS PREPARING FOR LIFE.

I cannot say that our examinations are as perfect as they might be. One thing is, that to our qualifying examination—the Minor—too little time is given. A candidate can pass this examination, and become a fully fledged chemist and druggist in less than two hours and a half; on the other hand, he may be plucked in half an hour: the examiner hardly becomes acquainted with the candidate in the time. The examination of candidates for the Associateship of the Institute of Chemistry occupies about four days. I have long held that our system is not right. Part of the examination should be conducted in writing, and the Pass Examination should be extended over at least two days. It is not just to the candidates, and I hold that in the interests of the public it is not fair to them, that a chemist can pass a qualifying examination in a little over two hours. It favours cram. I trust ere long that this will be rectified. One difficulty was that the room available in Bloomsbury Square became inadequate to the growing needs of the examinations; the office arrangements proved inconvenient for carrying them on efficiently: this has now been remedied. Another point is, it has been hoped that a curriculum with new by-laws would come into force by the passing of a new Act of Parliament. Seeing that one has been recently passed for Ireland, there still is hope that we also may obtain one from the present Parliament.

The young pharmacist's manipulative powers particularly require training during his apprenticeship. I am sorry that there seems to be a tendency among enterprising manufacturers to try to persuade the pharmacist that he has nothing to do but trust himself to their tender mercies, and they will supply him with everything ready made, from pills and plasters, tinctures and ointments, to concentrated infusions and compound decoctions, and that they will do this at less cost than he can buy drugs to make the preparations himself. This is the acme of their ambition—they can sell him a compound for less than its ingredients can be bought! Under such circumstances the training of the retail apprentice suffers, and he has little opportunity of learning his art. Added to this, the late hours of labour in some instances allow him little time for evening study. Still, in a number of cases he has better opportunities, and we hope under an improved system of examination to require the youth to show, probably during his apprenticeship, that he has embraced the facilities so afforded. He will, under such circumstances, make best progress by attending courses of instruction such as are given in this institution. Your syllabus rightly suggests, by Mr. Worrall's courses, early attention to chemistry. Botany, to my mind, is more of a summer subject; most interest is at first awakened in it by living plants; still, Mr. Humphreys' class will prepare you for the histological portion of it. *Materia medica* has its foundation on botany: Mr. Watts's course therefore follows. Mr. Grierson's demonstrations on pharmacy will be the application of the three preceding subjects: they will include practical dispensing. After learning the routine of your business at home you will have explained to you by an expert the application of scientific principles to your daily work. The systematic, step-by-step training is most beneficial to the mental culture of the student. Studying alone, his work is apt to become desultory; it needs to be continuous, and he requires to be kept at it.

#### OUR CRAFT NEEDS UNION.

With the spread of education and the smattering of chemistry taught in public schools, it behoves us to keep up



our standard. If we retain the title of chemist we must prove worthy of it. We shall not do so unless our training in the principles of chemistry is superior to that of the average well-educated Englishman. Through the devotion of a few noble minds the Pharmaceutical Society was established for the protection of those who carry on the business of chemist and druggist, but they voluntarily undertook also to establish a uniform system of education for those who should practise the same. The Legislature has since imposed on the Society the onerous duty of administering and regulating the sale of poisons, as well as the much more important one of conducting the examination of all those who seek to enter the ranks of pharmacy. Parliament did not force these on us, they were sought for in the interest of public safety. I am old enough to have observed the great advance that has been made by the Pharmaceutical Society during the last quarter of a century, mainly through the instrumentality of two of its presidents, Sandford and Carteighe. Others might be mentioned, but these two stand out boldly as having devoted their time, energies, and administrative talents for the advancement of pharmacy. Do not therefore forget your *alma mater*, which has done so much for you. To return to you

#### MODE OF PREPARING FOR EXAMINATIONS.

you must read carefully and observe. Reading, one of our philosophers says, makes a full man; speaking, a ready man; and writing, an exact man. Now, to pass your examinations and also to be worthy pharmacists, you must be all these. You must make notes of what you read and digest them well. Knowledge comes, but wisdom lingers.

Knowledge, a rude unprofitable mass,  
The mere materials with which wisdom builds,  
Till smoothed and squared and fitted to its place,  
Does hut encumber whom it seems t' enrich.

To be prepared also for your examinations and for your way through life, it is necessary to be *ready*, to have your wits about you; speaking makes a ready man. It is a good thing for students to catechise one another, so as to get into the habit of answering questions, and to have their knowledge come-at-able; this tends to give you clearer ideas, and will prevent you losing your heads or being nervous when you go into the examination-room. Still, you must pay the price for your learning, and it is worth it. There is no royal road to knowledge; comfort yourselves in this respect, comparatively few can attain it. We sometimes talk of popular science; there is no such thing, any more than there is popular mathematics. The higher mathematics and high scientific attainments are reached only by few minds. Their popular application we all reap the benefit of. Nevertheless, aim high.

Pitch thy behaviour low, thy projects high,  
So shalt thou humble and magnanimous be.  
Sink not in spirit; who aimeth at the sky  
Shoots higher much than he that means a tree.

Having learnt your art, aim at being something more than

#### MERE CHAPMEN OF DRUGS AND NOSTRUMS

on the one side or advertising ding-dongs on the other. Not that I would condemn advertising entirely, although it is much abused; yet if you have something to sell you must make it known, or often you will not sell it. Our occupation is one of anxiety and responsibility, and the anxiety of responsibility weighs heavily on the dispensing pharmacist. Often after a busy day's work the prescriptions I have dispensed have seemed to have a resurrection before my mind's eye, and with anxious thought I have mentally dispensed them again to know that I had done them right.

But with experience comes trust and hope. Yet we never get rid of our responsibility. I fear this is rarely fully appreciated in us by the public. I remember once, when a hospital dispenser, having to prepare for a poor child the following, which had been prescribed by a surgeon in the out-patients' room: Perchloride of mercury, 1 grain; pure ether, *quantum sufficit*; cod-liver oil to 4 fluid ounces. Dissolve and mix. Dose, a teaspoonful three times a day. After it had been supplied, an American surgeon who had seen the writer prescribe it came to the dispensary, and

having been informed it had been dispensed, said, "Well, I guess I should have required a 5-dollar fee to prepare that medicine."

I must draw to a close with a few final words of exhortation. It is said that youth is the time for pleasure; it is also the time for work. You take your pleasures by the way; they are not the objects of your existence. Be diligent. "Seest thou a man diligent in his business, he shall stand before kings" is as true now as it was in the days of Solomon. The child is father of the man, and—

If the spring put forth no blossom,  
In summer there will be no beauty,  
And in autumn no fruit;  
So, if youth be trifled away without improvement,  
Manhood will be contemptible  
And old age miserable.

The address was listened to with great interest by a large number of members, students and friends (including Mr. F. W. Branson, of Leeds), and on the motion of Mr. Fox, seconded by Mr. Grierson, a hearty vote of thanks was accorded.

After the meeting

#### THE ANNUAL DINNER

of the Sheffield Pharmaceutical and Chemical Society was held in the Cambridge Hall. About seventy sat down to dinner, and the proceedings were attended with their usual success. After the loyal toasts had been proposed by the President, and duly honoured, the "Pharmaceutical Society of Great Britain," the "Local Society," the "Office Bearers and School Staff," "Kindred Societies," and "The Visitors" were toasted.

During the day Mr. Martindale and Mr. Branson were accompanied by the Council and shown some of the sights of the town. The manufacture of Bessemer steel and that of armour plates were seen in all their stages at the works of Messrs. Brown & Co., after which the visitors were entertained to luncheon at the Angel Hotel. The afternoon was spent in inspecting the process of silver-plating as conducted at some of the principal works.

At a meeting of the Council held on Monday a resolution was carried asking all the past presidents to allow their portraits to be hung on the walls of the Society's rooms.

#### MARRIAGES.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

MOUNTCASTLE—COSSEY.—October 1, at St. Thomas Church, Heigham, Norwich, by the Rev. C. W. Claridge, Henry Mountcastle, of 12 Waverley Place, St. John's Wood, London, to Alice, elder daughter of John Cossey, chemist, St. John's, Maddermarket, Norwich.

NEWBY—WARNER.—On October 2, at Hamilton, N.B., John Marmaduke Newby, of Malton, Yorkshire, to Lucy Maria, eldest daughter of the late G. T. Warner, chemist, Clifton.

#### DEATH.

DUNBAR.—On September 28, Mr. George Dunbar, chemist and druggist, Dumfries. Mr. Dunbar was for some years a partner in the firm of Ewing & Co., aerated-water manufacturers, Dumfries, during which time he travelled regularly throughout the south of Scotland. He was widely known and much respected by every chemist on whom he called. Recently he left the above firm and began business for himself in the same town, and his efforts were attended with great success. He was valued as a sociable companion, full of racy anecdotes and of ready wit.

A HINT ON LABELLING BOTTLES, &c.—Bottles which are to be stored in damp and unventilated cellars are apt to lose their labels; but if the labels are written on the back of adhesive plaster, and applied to the bottle in a careful manner, they will stick for years and not be affected by dampness.

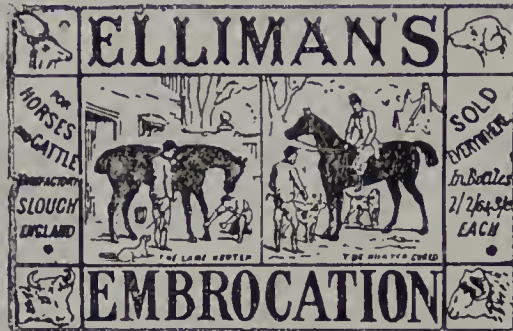


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IS OUR TITLE WORTH FIGHTING  
 FOR?

In considering the new Pharmacy Bill, chemists should  
 understand that they, or their representatives, are in that  
 document laying down in precise language such of their  
 claims as they think are based on reasonable grounds, and



which, if conceded, will tend towards the public advantage. Any important demand abandoned now is abandoned for ever, if it be one of applicability to existing circumstances.

The majority of the Pharmaceutical Council have deliberately resolved, after a sufficient discussion, to abandon to existing and futuro incorporated companies just so much of their hard-worn rights as these companies choose to take.

What are the special legal rights conferred on chemists and druggists by the Pharmacy Act of 1868? They are two, and two only. The exclusive right to sell certain poisons, and the exclusive right to the title of chemist and druggist. Mr. Carteighe implies that the first right was thrust upon the Society. In this statement, which he is fond of repeating, he gives an entirely incorrect representation of the work of his predecessors. The Bill which the Pharmaceutical Society drafted provided that it should not be lawful except to certain persons to carry on the trade of a chemist and druggist. That was, of course, meant to include the sale of poisons, and the only ground on which it can be said that the Society did not promote a Poisons Act is by admitting that they expressed themselves so vaguely that they could not be said to aim at anything actually attainable.

The other exclusive property bestowed on chemists and druggists by the Pharmacy Act, 1868, is the title. At last week's Council, "Mr. Martindale asked if that was worth fighting for?" and the President replied, "He did not think it was worth fighting for."

These are not merely quotations separated from the context. They do, in fact, represent the conclusion at which these men, and the majority of the Pharmaceutical Council, have arrived—that the title chemist and druggist, a business property which the Legislature meant should indicate a certain degree of qualification, may be taken by anyone, and is "not worth fighting for."

Yes; may be taken by anyone. A man wants nothing but six signatures besides his own, and a few shillings to pay the fees, and he can take the title which, as we have said, the Legislature undoubtedly intended should be the sign of a certain qualification.

And it is not only the case that men can do this: it is the fact that they do it. Gradually the system is spreading over the country. Company promoters are beginning to tout for customers to qualify in this easy manner, and lawyers are beginning to recommend their clients to adopt the procedure. It is a system which makes half the Pharmacy Act mere foolery, and it is a system which cannot help spreading, it is so charmingly simple and advantageous. It will be the ruin of British pharmacy, and yet, in the opinion of our representatives it is not worth fighting against.

Next week we will deal more closely with Mr. Carteighe's speech in defence of his policy. Our present object is to fix attention on the glaring deficiency of the Bill in respect to this greatest danger threatening pharmacy, which he and his colleagues consider not worth fighting about.

### CHEMISTS' ASSOCIATIONS.

WITH the assistance of a number of correspondents in different parts of the country, we have succeeded in completing the census of chemists' associations, to which reference was made a fortnight ago, and the results are recorded elsewhere in this issue. We have at the outset to acknowledge gratefully the help which our correspondents have afforded us; many of them, in addition to giving statistics, have expressed approval of the scheme, and state that unity of action amongst the chemists of the country is almost im-

possible under the present depressed condition of the provincial associations. To what extent the state of things can be remedied the context will show.

We find that we have to deal with less than thirty associations, a third of which are composed of juniors in Scotland having five, and England four or five, assistants' and apprentices' associations. Properly speaking, these associations did not come within the scope of our inquiry, but all the material which we have received goes to show that they are doing really good work in the towns where they exist, and there is evidence that they can be utilised for doing much of the work which senior associations have hitherto taken up their time with, perhaps in many cases unprofitably. We refer to the system of reading essays and practical papers, which are more in the nature of educational advancement than actual research. For such work young men are better suited than those who have the care of businesses on their shoulders, while the latter are more concerned than their juniors regarding trade problems and legislative procedure. But there are by far too few assistants' associations. There ought to be at least forty in England if we were to reckon on the Scotch basis, although the latter country is better situated in respect of the fact that the outdoor system is universal. Still, the fact remains that several do exist in England, so that the initial difficulty has been overcome, and we suggest an extension in all towns where a dozen assistants and apprentices can be got together. As at Oldham, they could meet weekly for mutual assistance in examinational work, and here a few masters, or men who have passed the examinations, could render good personal service. Meetings for paper-reading could also be held occasionally; no ambitious attempt need be made at a programme where the number of members is small. A new remedy, a difficult prescription, one of our "Students' Corner" samples, or half-a-dozen notes on chemicals examined as put into stock, will furnish ample material for an evening's discussion; and an energetic secretary and good-humoured chairman will do much to bring the members together. We are afraid that there is too great anxiety on the part of junior associations to shine in print, and, judging from the reports which we receive, there is some rivalry between existing associations in this respect. This is a bad feature. The first consideration is to establish harmony amongst the juniors—to encourage study amongst them and mutual assistance—then to foster originality in thinking and practice; and when these have been obtained, higher work will take care of itself.

In point of activity the senior associations are woefully behind the juniors. In little more than half-a-dozen is the organisation so complete that a meeting could be called at a day's notice to get an expression of opinion regarding any matter of urgency to the trade at large. Some of the associations exist only on paper, or the only public function which they perform is to send delegates to the Pharmaceutical Conference—self-elected delegates in many cases, doubtless. A strange fascination is the Conference; several secretaries write to us as if they were proud of the fact that their associations send delegates to it. If the Conference had succeeded in drawing chemists together in the towns which it has visited, we could understand a feeling of reciprocity; but almost every town is a blank, as our census shows. It is true that in some of the towns the Conference has had a temporary influence in bringing chemists together, but unfortunately they have taken the Conference as their model, and have proved unequal to the task of working up to it. Yet it will be seen that apparently prosperous associations exist in much smaller towns, where the conditions of existence are obviously not so favourable.



This brings us to note that active organisations may be divided into three classes—1st, the friendly; 2nd, the educational; and 3rd, the general. There are not many of the first class, but what there are appear to be good. Dover and Inverness are good examples; in the former town there are 13 chemists, and 11 of them belong to the association, which has meetings quarterly to talk about business; the seven chemists in Inverness do the same. Many of the second class of associations have their heads in the clouds—a secretary or president arranging classes for students—and with this their function ends; but there are others, notably Leicester and Nottingham, which, in addition to looking after students, have some regard for themselves; they talk “shop” occasionally, the members get to know each other, and when occasion arises they are prepared to discuss a topical question. The third class of associations contains the oldest ones in the country; like all others, their object is “the advancement of pharmacy and the protection of the trade interests of their members.” They do something for education, something for the improvement of pharmacy, and something for trade. They have periodical meetings, formal discussions, and are generally regarded as “going concerns.” Birmingham, Liverpool, and Sheffield furnish good examples. In point of influence the societies in this last class have far more weight than the first; the opinion of the Liverpool association, for instance, is more respected than that of the Dover one; but we question if that is right, for with its hundred and odd members the Liverpool one often fails to get half-a-dozen together to consider matters of the greatest importance, while Dover may rely upon getting every man together. In these circumstances we back Dover. It is the universal experience amongst office-bearers of the more important associations that members do not attend meetings in force, even on very important occasions. This is attributed to apathy, but it is not altogether due to that. Several correspondents support us in the belief that the systematic dosing of meetings with scientific papers has driven away the audiences, who have discovered that they can take in such matter better from a journal than sitting on a hard bench beside neighbours who, like themselves, would prefer to talk “shop” for half-an-hour. We do not wish to be misunderstood regarding scientific papers. They are necessary and useful, but local associations without exception have discovered that they cannot get enough of them to spread over a session, yet they attempt to keep up the fallacy that it is these papers which warrant their existence. It would be far better if they would let the papers filtrate to the trade journals or the Pharmaceutical Society, and look more narrowly to what concerns them as men of business. But they need not abandon this department altogether, for it is one of those which we take to be the principal objects of local associations, viz. :—

(1) Consideration of local interests, such as friendly intercourse amongst chemists, agreement in regard to hours and holidays, regulation of prices, and the promotion of friendly relations with medical men.

(2) Discussions in regard to trade politics, and co-operation with kindred associations regarding matters affecting the trade as a whole.

(3) Educational; including the encouragement of study amongst *employés*, and fostering junior associations by influence and support; assistance to the Pharmacopœia authorities, and occasional and unpretentious communications on the practice of pharmacy.

It is in the first department that small associations are particularly successful, and we fail to see how large associations can do much good in it until there is a large measure of decentralisation. The Chicago “plan,” which we reported

last week, might be imitated, towns being divided into districts, with a convener in each, who would be the delegated member of the Central Council. Harmony in a division must be got before a dead level of uniformity in a whole city. For this end there should be divisional meetings periodically throughout the whole year, with frequent central meetings in the winter months, these being largely of a social character. Necessarily much of the work in the second department, and the whole of that in the third, will be central. But a radical change is required in the public proceedings regarding matters of general trade interest. The opinions of associations on these topics, expressed as they are at present, are of comparatively little value, because the members find when they get to the meetings that a cut-and-dry resolution is ready, which is put forward in such a way that criticism is disarmed. The drug trade will never be harmonious if this system goes on; for it is the men who are thus gagged who become the grumblers of the trade.

There was never a better time than the present for a beginning of old work on the new lines. The Pharmacy Bill, bogus company pharmacy, the sale of poisonous patent medicines by unqualified persons, shop hours, and the counteraction of “cutting,” are subjects which are pressing, and which affect every chemist in the country. Everyone has the right to express his opinion and to use his influence for the promotion of the general welfare, but these are practically useless to the central authorities until they are concentrated. We regard the local associations—old, new, and in embryo—as so many vacuum pans which can be profitably employed in giving the extract of provincial opinion. We have no bold scheme to suggest, for a little reformation in the living, a resuscitation of the dormant, and a resurrection of the dead associations are the first items on the pharmaceutical programme. Towards this end, those who have experience in provincial association work can give assistance, and we shall gladly publish any communications which are likely to be helpful.

## THE SALE OF FOOD AND DRUGS ACT.

### ANALYSES IN 1889.

THE report of the Local Government Board for the year 1889 has just been issued. The usual particulars concerning the examination of the Sale of Food and Drugs Act are comprised in this very bulky volume. There are now, it appears, in England and Wales 228 public analysts approved by the Board. Forty-one of these supervise the honesty of metropolitan traders. During the year 1889, these analysts report that they tested 26,954 samples, or about 600 more than in 1888. Of these, 3,096 are declared (by the analysts) to have been adulterated. The percentage of adulterated samples to those examined was 11.5. In 1888 it was 10.8. This proves very little. The Local Government authorities, who seem to have but little capacity for seeing behind figures, especially figures with fractions attached to them, remark complacently that this percentage (11.5) is “lower than in any previous year except 1888, when it was under 11. In the five years 1877–81 it was 16.2, and the improvement under the Act of 1875 has been pretty constantly progressive.” It may be, but these figures do not prove it. A single cranky analyst can affect the proportion. His analyses may be right or wrong, the adulteration he alleges may be important or entirely trifling; they are taken as gospel, and all lumped together, and the honesty of traders is gauged by them at the Local Government Board. For years past we have been urging on the Board what we should have thought would have needed no argu-



ment—namely, to record convictions, not merely analysts' reports. They have come half-way, and have arrived at a glimmering perception that their methods are not absolutely sound. They say these

"statutory reports which we receive from the authorities are copies of those made to them by the analysts, and show only the number and description of the samples analysed, with the results of the analyses, but without any particulars of prosecutions. Indeed, a large number of samples are classed as adulterated in which the amount of adulteration is so small as to make it inexpedient to take the cases into court. We, therefore, again requested authorities to supply us with particulars as to the number of cases in which legal proceedings were instituted, and the amounts of the penalties inflicted. Information on these points was furnished by the authorities of 120 districts, in which 2,370 samples had been reported against. Proceedings were taken in 1,691 of these cases, and fines were imposed amounting in the aggregate to 2,309*l.* exclusive (in most cases) of costs."

Why cannot they ask for the number of convictions?

Milk furnished nearly half the samples examined (11,610), and of these 1,534 were declared adulterated. On this subject the Board remarks:—

"The adulteration of milk is so simple, so profitable, and so likely to escape detection, that even under the best system of local administration it is not likely to be easily put down. It is effected merely by the addition of water, for the plan, if it ever really existed, of adding chalk or other substances to make the fluid less thin, has long since been abandoned. It is extremely lucrative, for if the legitimate profit of the retailer, on the sale of a gallon of pure milk at fourpence a quart, amounts to fourpence, he has only to add a pint of water in order to increase his gain by 50 per cent. And if the milk with which he is supplied from the country is of rich quality, he may add a considerable amount of water without fear of detection. As we have pointed out in previous reports, science has not yet discovered the means of distinguishing between rich milk which has been diluted with water, and milk which, from the condition, or breed, or food of the cow, is of poor quality though perfectly genuine. The result is that many samples are submitted to the analyst which he is unable to pronounce with certainty to be adulterated, though he finds them much below the standard of milk furnished by an average cow."

It is calculated the milk supply of the metropolis aggregates nearly thirty million gallons yearly, for which two millions sterling is paid. If an eighth part of water is added to one-fifth of this quantity, a loss of 50,000*l.* sterling is represented annually. The Board remark that the London percentage of adulterated samples is 21.1, while that of Manchester is 8.2, and of Salford 5.6, where, they say, "the public analyst congratulates the health committee on having, through their inspectors, secured the purest milk supply in the Kingdom." This they may have, but again we say that these figures do not prove it.

The Margarine Act is found to have had but little effect in preventing the sale of fatty compounds as gennine butter, but coffee is believed to be still largely adulterated with chicory. The adulteration of sugar seems to be obsolete; at least, all the samples tested in 1888 and 1889 were found to be gennine. Tea is almost in the same happy condition, only 2 samples out of 443 being found wrong. The addition of flour to mustard is sometimes described as an adulteration, but the Board and magistrates have not yet succeeded in making up their minds whether it ought to be so regarded.

Mr. Cassell, the analyst for St. George's, Hanover Square, remarks:

"That as there is no legal definition as to the composition of sweets, the examination of them under the Act is confined to the search for poisonous colouring matters and flavouring materials, and for insoluble and indigestible constituents such as plaster of Paris and paraffin-wax. Great improve-

ment, however, has been effected of late years as regards the exclusion of injurious ingredients, and though, out of the entire number of samples examined in England during the year, eighteen were reported against, the adulteration was rarely of a serious character. A pernicious substance, however, called 'chow-gum' seems to have lately gained popularity. The analyst for Wiltshire describes this as nice, tasty, and sold in a variety of forms wrapped in paper, each piece labelled either 'For chewing only' or 'Not to be eaten.' He has known instances in which young children unable to read have been seriously injured by swallowing this matter, which tends to produce a stoppage in the alimentary canal. One child was actually killed by swallowing a piece of this 'chow-gum'; and on an inquest being held, the jury recommended that the attention of the Board should be directed to the question of its being dealt with under the Act. The Board were of opinion, however, that its sale could not properly be brought within the scope of these Acts."

Concerning drugs, the Board report as follows:—

"The percentage of samples of drugs reported against continues to be high, and it is not reassuring to find that out of 67 samples of medicine compounded on prescriptions, more than one-tenth were reported as passing the limit of permissible deviation, though carelessness rather than the desire for illegitimate profit seems to have been generally the cause of the difference. Of 12 samples of 'paregoric' no less than 9 were reported against, but most of these seem not to have been bought from registered chemists; and unregistered vendors of the substance are in a dilemma. If they sell genuine 'paregoric,' which is compound tincture of opium, they are liable to a penalty under the Pharmacy Acts; whereas, if they sell the imitation article, they come within the meshes of the Sale of Food and Drugs Act. Another drug, of which a large proportion of the samples were condemned, was sweet spirits of nitre, but in this case the deficiency was generally in the spirit, [!] which has a tendency to evaporate on being kept."

The bracketed note of admiration above is our tribute of respect to the pharmaceutical knowledge of the official reporter.

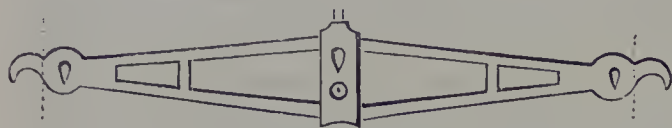
Wines, the Board believe, are purer here than in the countries where they are made. Only 10 beers out of 400 examined were reported against, but as beer may be almost anything, substitutes for malt and hops being expressly allowed, the only chance for the public analyst is the excess of an ingredient, such as salt, which is plainly a substitute for neither. Moreover, the Inland Revenue authorities take good care that the dilution of beer with water is not persistently practised by publicans, this being a fiscal offence. The adulteration of spirits in a temperance direction continues.

## THE WEIGHTS AND MEASURES ACT, 1889.

IN consequence of several letters which have reached us, and of the general necessity of an acquaintance with the method of procedure of local authorities under this Act, we have made some special inquiries respecting it. The Act provides that "every weighing instrument used for trade (*i.e.*, upon the return of which a payment depends, either in money or in labour) shall be verified and stamped by an inspector of weights and measures with a stamp of verification under this Act," and the Act expressly requires that this verification and stamping shall be done in the course of this year, for from and after January 1, 1891, it will be illegal to use for any trade purpose whatever, or to keep for such use, any scales or weighing instruments not duly stamped. The penalty for non-compliance with this provision is 2*l.*, or in the case of a second offence 5*l.* The local authorities appointed to look after the working of the Act are the city, town, or county council respectively, and these bodies appoint local inspectors to carry out the Act. The appoint-



ment of the inspectors has to be sanctioned by the Board of Trade, and it then becomes their duty to fix days and places in each district where scales shall be tested and stamped for certain fixed fees. In many parts of the country this procedure has been carried out, and in all cases, we believe, notice has been prominently given of the fixtures by attractive official posters and otherwise. Mr. H. J. Chaney, Superintendent of Weights and Measures to the Board of Trade, was called upon, and courteously gave our representative every information. He showed the poster announcement used, and stated further that for want of time the county councils in some districts have not yet considered the Act, or provided the necessary officers or regulations to carry it into effect, and that in those districts it will be impossible to do the work required before January 1, 1891. In view of this circumstance we are empowered by Mr. Chaney to say that if any undue pressure or prosecution should be imposed upon chemists and druggists by local inspectors or others, without fair notice having been given, if complaint is made to him immediately he will investigate such proceedings with a view of stopping unjust ones, as it is not the wish of the Board of Trade to harass traders in the slightest degree. On May 12 last an additional regulation was made by the Board of Trade, refusing to sanction the stamping by inspectors of scale-beams having the projecting ends, or "beak" ends, as shown in the following figure:—



These projecting ends can be easily filed off where the dotted line crosses the beam.

On inquiry at Messrs. S. Maw, Son & Thompson's, we are informed that they are receiving orders for adjustment and stamping of scales to a large extent for both London and the provinces. They tell us that the order has brought to light a large number of scales of such ancient fashion and extraordinary design as to be not worth the cost of readjustment. Many of these they have been compelled to return to their owners unadjusted. We are also informed that the authorities at the Guildhall are so flooded with business that they cannot possibly hope to get through it this year, and will have to apply for an order in Council to extend the time allowed for verification. Taking all these matters into consideration, it is probable that the Act will not be rigidly enforced in the early part of the new year.

### THE NEW AMERICAN CUSTOMS ADMINISTRATIVE ACT.

IN the excitement caused on this side of the Atlantic, and especially on the Continent, by the passing into law of the McKinley Tariff Bill, the importance of the preceding measure, largely engineered by the same now notorious politician and known as the "Customs Administrative Bill," has been somewhat lost sight of. In our issue of Sept. 27 we referred to that Act, which came into force on August 1, as enormously increasing the difficulties of importing goods in the United States. If strictly enforced it is, indeed, likely to be more effective in checking commercial relations with the States than the Tariff Act itself. It was formerly not easy to import merchandise into America, and the complex formalities of sworn declarations and certificates with their attendant fees, have long been a nuisance to American

shippers. But these formalities, under the guise of "simplification of the laws relating to customs" are very largely increased, and the penalties rendered more stringent under the new law. We have already referred to the appointment of nine "official appraisers" under the new Act. It is the business of these worthy gentlemen, selected in the first place with regard to their political influence, to determine the exact value of all goods imported into the States by independent investigation, and with express disregard of the documents relating to the value which must be produced by the person who enters any shipment of foreign goods into the country. The "appraisers" hold their appointments at the discretion of the President, and to them and their army of subordinates is left the decision of all disputed questions of classification of imported merchandise, and, practically, that of determining the truth of the declarations as to the value of goods, which the consignee has to produce for the assessment of the duty, although in the latter case the consignee has the right to appeal to the law courts. The appraisers, as well as the collectors, have the right to summon before them any persons connected with the importation of a consignment of merchandise, and examine them on oath with regard to any matters connected with that importation, in order to arrive at a proper determination of the duty. Non-compliance with this summons, or refusal to answer questions, is punishable by heavy fines, while untruthful statements are treated as perjury, and, if made by the owner, importer, or consignee of the goods personally, involve the confiscation of the wares. *Ad valorem* duties are to be determined by the fair wholesale value of the imported goods at the time of their shipments on the markets whence they came, and are payable not only on the net weight of goods themselves, but on their gross weight, all packages included. If goods, which would be duty free under ordinary circumstances, are imported in packages of an unusual character for the class to which they belong, the packages themselves will be subjected to the duties of the material from which they are made.

The old clause under which the duties on goods damaged in transit were moderated according to the injury sustained is abolished, and damaged merchandise now pays on the same scale as sound. Bribery on the part of importers is punishable by \$2,000 fine and one year's imprisonment, while any Customs officer accepting bribes may be fined \$5,000 and put into prison for two years. A consignee is bound, before clearing his goods, to furnish the Customs authorities with the invoice, showing, in the currency of the country whence the goods came, the exact amounts paid for them, the precise cost of their packing, and the amount of all other disbursements, and (if acquired by purchase) the name of the buyer, of the place where they were bought, and the time of purchase. No discounts or rebates not actually paid are allowed to appear on the invoices. The invoice must be accompanied by a sworn declaration made by the exporter before the United States Consul of his district. If the goods are not actually sold, but consigned, their fair wholesale market value in the market of their origin at the time of shipment must be recorded on the invoice. With the exception of personal effects brought into the country by travellers, no goods over the value of \$100 are permitted to be entered without such a sworn declaration. Any one who knowingly makes any false statement in any of the documents which must be produced for the clearing of goods is liable to a fine of \$5,000 and two years' imprisonment. Goods arriving in the country without being addressed to a specified person are considered, for the purpose of customs formalities, to be consigned to the holder of the endorsed bill of lading, or, in certain cir-



circumstances, the person who has insured them may be considered the consignee. If the value at which the appraiser or his representative estimates certain goods exceeds that declared on the invoice by more than 10 per cent., the goods shall be liable, in addition to the ordinary duty, to a kind of penal duty amounting to 2 per cent. of the appraisers' total valuation for every 1 per cent. at which the value of the goods has been found to exceed that declared in the invoice. This clause appears somewhat involved, but we take it that the following would furnish an example. A person imports goods declared at a value of 100*l.* on the invoice, on which there is a duty of 50*l.* in the ordinary way. The appraiser values the goods at 120*l.*, and the importer, instead of paying 60*l.* duty as he would have had to do had they been invoiced at 120*l.*, pays 2 per cent. of 120*l.* on every per cent. excess valuation or  $20 \times 2\frac{1}{2} \text{ s.} + 50\text{ l.} = 99\text{ l.}$  But if the appraiser's valuation exceeds the invoice amount by more than 40 per cent. the consignment may be regarded as *prima facie* a fraudulent one. It may then be confiscated and the owner proceeded against criminally, the onus of proof lying with the importer. The same regulations with regard to valuation apply to the packages in which goods are imported.

### THE ETHICS OF COMMERCE.

COMMERCE is in a bad way if Archdeacon Farrar knows much about it. At the recent meeting of the Church Congress, at Hull, this fluent gentleman opened a discussion on the subject indicated by the title of this article in a paper distinguished rather for its profusion of adjectives than for logical acuteness or for careful investigation. The characteristics of modern commerce seem to be, in Archdeacon Farrar's view, "endless adulterations"; "of cloth, with shoddy; of butter, with margarine; of cocoa, with starch; of bread, with alum; of coffee, with finings; of confectionery, with chromate of lead and arsenic of copper; of spirits, with oil of vitriol; of wine, and beer, and porter, with every conceivable abomination; and of nearly everything else with something else." This charge, with the last count included, is comprehensive enough to cover nearly all branches of trade. Substituting arithmetic for rhetoric for a moment, we should like to remind this reverend gentleman that the population of Great Britain is something over 30,000,000. We suppose he will admit that on the average every individual man, woman and baby may be said to engage in at least a thousand trade transactions in each year. That makes thirty thousands of millions. Now, if the Archdeacon will send to the Queen's printers for a copy of the report of the Local Government Board he will find that there is an army of public analysts all over the country eager to distinguish themselves, and, like his reverence, not too careful about their statements in reference to tradesmen. He will discover that after all the activity displayed by these gentlemen, and taking their reports to be entirely reliable, only 3,093 samples of food, drink, or drugs, were found adulterated in the year 1889, the last year reported on. Not one case of adulteration discovered in ten millions of transactions, Mr. Farrar. We do not say our method of getting at this result is not open to some criticism, but it is as good as the Westminster divine's sensationalist assumptions, anyway.

Adulteration, however, is only one of the manifestations of traders' dishonesty. They fill up time, it seems, by sending bills in twice, raising false beliefs of cheapness, cutting off trade-marks to pass new goods, bribing servants, scamping work, giving "short lengths in calico, silk, lace, cotton, braid, and a hundred other things." Sweating,

fulsome advertisements, lying, and boastful representations gambling, swindling, corners and rings, poisoning children for insurance money, buying the poor for silver and the needy for a pair of shoes—these and a dozen other villainies are, in Archdeacon Farrar's opinion, the methods of modern British commerce. No wonder that this eminent clergyman should agree with his agnostic friend, Herbert Spencer, in the conclusion that, as the result of long experience, he believes trade to be essentially corrupt. This opinion is attributed by Archdeacon Farrar to Mr. Spencer, but we have not verified the quotation, and should have given the philosopher credit for more sense.

That a certain amount of rascality hangs on to all commerce is indisputable, but writers or speakers who think the fabric is all fringe are not close reasoners nor trustworthy observers, no matter how high their reputation may be. Dr. Farrar rightly and well says that the code of commercial ethics is comprised in the Eighth, Ninth, and Ten Commandments, but the middle one of these is as applicable to Church Congress orators as to traders.\*

It is fair to acknowledge that other speakers in this discussion were more reasonable and more practical than the archdeacon. That saintly solicitor, Mr. Sydney Gedge, M.P., showed himself rather lacking in a sense of humour by solemnly refuting the visions of the author of "Looking Backward"; but Canon Fremantle saw in trade "an ordinance of God designed to make the outer world subserve all the needs of man; drawing men and nations together in friendly intercourse, and begetting the sense of brotherhood in ever widening circles." Dr. Cunningham, of Cambridge, pointed out that the Ten Commandments were not quite a sufficient guide for business men who wished to act honestly. Some "middle principles" were wanted to enable them to apply them. The Ten Commandments, for instance, did not give direct light on the question whether a man ought to pay additional wages per hour, and to say these principles should consciously govern our conduct was apt to burden the consciences of some, and to make others scoff at Christianity as idle altogether.

The Church Congress debaters may rely upon it that the vast majority of commercial men—including almost all of those whose transactions are of any magnitude—have adopted as a working principle the theory that honesty is the best policy, and that trustworthiness is the best capital. They are not entitled to any credit on this account. These are simply maxims deduced from experience and followed almost unconsciously. Buying and selling and getting gain means simply the mutually advantageous interchange of commodities, and the frauds incident to business are the grit which prevents the invariably smooth running of the wheels of commerce, and which irritates true men of business at least as much as bishops and archdeacons.

\* In a letter Dr. Farrar has since published he complains that a sentence of his paper was omitted. In that he stated that there were tens of thousands of honest tradesmen in England to whom his remarks had no applicability. We are glad for his reputation's sake to read this correction. But this cannot affect the "nearly everything else with something else," already quoted, in another part of his speech.

**SHOEMAKER'S CEMENT.**—Mr. J. Saunders has obtained a patent for a cement to be used for attaching leather to boots, and for belts. The cement is prepared by mixing together: Methylated ether, 1 lb.; carbon bisulphide, 8 lbs.; raw gutta-percha, 1 oz.; elastic glue, 1 oz.; indiarubber tissue, 1 lb. The mixture is left for twelve hours, and after being agitated for one hour is fit for use. The mode of application is to roughen the surfaces of the articles to be united, to apply one or two coats of the cement, allow to dry, warm gently, press both articles firmly together, and tap with a hammer. *Jour. S. C. I.*



## COMMENTARY.

**EUPHORINE.**—This is the name under which the firm of Dr. J. von Heyden is introducing the compound phenylurethane,  $\text{CO.OC}_2\text{H}_5.\text{NH.C}_6\text{H}_5$ , which was first discovered by Professor Giacosa, of Turin. Henceforth it will be known as "Euphorine." It is said to possess antithermic, antirheumatic, analgesic, and antiseptic properties.

**THE CHEMISTS' ASSISTANTS' ASSOCIATION** seems to have pretty well exhausted itself, if we may judge from the programme sent to us for the meetings during the forthcoming three months. Papers are promised by Messrs. T. P. Blunt, M.A. (Stereo-Chemical Theories), J. Woodland, F.L.S. (Fungi), A. H. Allen, F.I.C. (Our Breakfast Beverages), T. A. Ellwood, F.C.S. (Electro-Chemistry), Miss Emily A. Munro (Our Best Pasture Soils: What they Are and What they Grow). We judge that in this series one only of the papers is to be read by a member of the association. There is one evening set apart for short papers by members, two musical and social evenings (the first one on October 16, at 9 P.M.), and a *conversazione*.

**LANOLIN IN THE PHARMACOPŒIA.**—Professor Attfield has had to rebuke the *Medical Press*. The other week our contemporary discovered somehow that the Pharmacopœia Committee proposes to publish an addendum, and commented upon the fact. Professor Attfield now writes to the editor in his usual neat way:—"I am sure that you and your readers will thank me for drawing attention to an amusing little oversight in your issue for September 24. You ask why lanolin, after having been recommended for inclusion in the proposed Addendum to the Pharmacopœia by nine of the eleven medical bodies, should have been left out. You offer other criticisms of the action of the Pharmacopœia Committee of the Medical Council, but state that 'we are, however, most concerned about the rejection of lanolin.' 'The Committee saw fit to throw it aside,' 'perhaps the Committee will also see fit to explain their action.' 'But,' to quote only two or three more of your own words, 'when we come to look at the list of articles recommended by the Committee . . . what do we find?' On the second of the thirty-eight lines of the list we find, Sir, the following three words:—*Adèps lanæ* (lanolin)."

**MORE "ENGLISH AS SHE IS WROTE."**—It is a characteristic tribute to our commercial greatness that there should be so many newspapers published in the English language in non-English-speaking countries. France, Turkey, Spanish America, Brazil, China, and Japan, all have their newspapers published in English, edited by Britishers or Americans, and circulating among the local English-speaking residents. But, in addition to these *bonâ-fide* public journals, a mushroom variety of prints has sprung into existence during the last decade, which profess to represent English interests on the Continent, and endeavour to lead Continental manufacturers to believe that, because they are printed in what they are pleased to call the English language, their columns are of some value as an advertising medium in cultivating a trade with British markets. Needless to say, in almost every instance the papers in question answer literally to Prince Bismarck's famous description of the press as being "only ink upon paper," and are "edited" by individuals innocent alike of all technical knowledge, English grammar, or the ordinary ethics of journalism. Such journals are printed in several German cities, where apparently they contrive to eke out an inglorious existence. The latest of these pseudo-British trade-journals hails from Brussels, but it is, as might

be expected, brought out under the auspices of a German firm, and its prospectus is printed in an English so bad as only a German could possibly learn to speak or write. It is to be a universal review of modern inventions "vulgarising of the practical inventions industrial and commercial publicity"; and it appeals to advertisers for support on the grounds, among others, that "indeed, a newspaper treating only one industry should be read only by the specialists, while our *Revue*, diffused in all the branches, is indistinctly (*sic*) read by all the traders which may purchase engines, frames, etc.; instal the electricity, use chemical products which occupy themselves of photography, etc. We permit ourselves of offer you our publicity which is very efficacy, our working being 10,000 numbers sent to the traders of the country and to the principal firms of the foreign." And so on. "Subscription the Number" is one franc, and advertisements 10 centimes per "sq. centimeter." When will advertisers understand that such trash would be dear at 10 centimes per square mile?

**RUSKIN AND BEECHAM.**—Mr. Arthur Severn, writing to the *Times* from Professor Ruskin's home at Coniston, tells the nation that the famous art authority has been "greatly put about" by "a large board advertisement of pills stuck up right in the middle" of the beautiful Bowness Bay. Mr. Severn has scarcely acquired his uncle's grace of expression, but he evidently aims at the prophet's directness of definition. This is bad enough; but Mr. Severn says the professor will hardly believe his story about the fishing-boats. "Poor fishing-boats! Bribed to have the advertisements (pills) on their sails. They are bribed with a promise of a new set of sails. Anyone can see this at Falmouth or Cowes. What a sight! To see a fishing-fleet putting out to sea so disgraced. It is a difficult matter, I dare say, to put a stop to such an evil; but the time is coming when something will have to be done." Some days later the great pill-maker replied to the art critic. "It would have been interesting," he remarks, "to have had the professor's opinion of the very practical manner in which some of the local beauty-lovers lately sought to accomplish their highly sentimental ends; but it would, I cannot doubt, have agreed with that of the Windermere magistrates." The St. Helen's philistine, however, is good-humouredly amiable towards his sentimental assailants. He adds: "If the defendants who lately had to appear in court had treated me in the true manner of the social *status* which they claim, I would have sought to emulate their encouraging example, and what has so 'greatly put about' Professor Ruskin should have been removed. Even now, if Professor Ruskin will express the desire, the board advertisement shall be removed." That is a fair offer, surely. When a man can get rid of what annoys him by a polite word, his "put-aboutedness" cannot be very serious if he will not speak it. "But as to the fishing-boats," says Mr. Beecham, "I must stand firm. So far from owners being 'bribed' by me with the sails, I am inundated with letters from owners begging for sails; and if, instead of Mr. Severn regarding a fishing-fleet, equipped with my painted sails, from the æsthetic point of view only, he would do so from the humanitarian, why, then, instead of speaking of disgrace, he would speak of delight. He might still say, 'What a sight!' But he would proceed:—'How beneficent! These owners have been able to leave extra money at home for wives and weans beyond what their ability could have ever been had they to buy their own sails. And how harmless! The inscription is no treason, or blasphemy, or conundrum. It is merely the name of a well-advertised specific, familiar even without these sea signs—familiar in our ears as household words.'"



## Trade Report.

**Notice to Retail Buyers:**—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.O., October 9.

**HIGH AND LOW CINCHONA PRICES.**—The now unusually high price of 1s. per lb. was realised on Tuesday by a few lots of very fine bark—the first being two bales of renewed officialis shavings from Ceylon, and the next 10 bales bold Ledgeriana stem chips from India. For one small case of renewed quilly Succirubra chips from Ceylon the unusually high figure of 8d. per lb. was also paid. At the other end of the scale the lowest price realised at the auctions was that paid for 3 bales Succirubra twigs from Ceylon, which sold at  $\frac{3}{4}$ d. per lb. Some years ago, when 2s. 6d. or 3s. was a usual price for red chips, such twigs were thought cheap at 10d. per lb. This week also 1 $\frac{3}{4}$ d. per lb. was the best offer that could be obtained for some damaged soft Colombian bark, imported as far back as May 1880. The broker was not at liberty to accept this bid, and bought in the parcel at 2 $\frac{1}{2}$ d. per lb., plaintively observing that when he offered it the last time—ten years ago—he rejected an offer of 1s. 9d. per lb. for the same lot. The parcel was a small one, and the loss to the importers—apart from the cost of the warehousing of the bark—probably not over 200l. About a decade ago offers of 4s. per lb. were more than once refused for a specially fine brand (Z.O.) of this same variety of cinchona, but the owners of these lots were comparatively fortunate, as they have since been able to clear them at about 8d. per lb. The large quantity of Calisaya bark from the South American plantations formed a feature of the auctions. Nearly 90,000 lbs., mostly of recent import *via* Liverpool or Hamburg, passed the hammer, and two-thirds of this was sold. It must not be forgotten that this bark is nearly twice as rich as the average Ceylon or Indian bark. Most of it is bought by the English quinine-makers.

**ACID (CITRIC).**—Very dull of sale, and offering at 1s. 3 $\frac{1}{2}$ d. on the spot. The exports of citric acid (English-made) by sea from London last month were 1,698 cwt., against 1,366 cwt. in September of last year. The imports of concentrated juice into this country during the first nine months of the year were: In 1890, 3,649 pipes; in 1889, 4,052 pipes; and in 1888, 3,511 pipes.

**ACID (TANNIC).**—The price of tannic acid, and that of gallic acid also, is advancing, and the former is now quoted at 1s. 10d. to 1s. 10 $\frac{1}{2}$ d. per lb. The reason of the advance is said to lie in the unusually poor quality of the nut-galls, not only the *Chinese*, but especially the *Turkey* galls now offered on the market, which renders their relative price much above the average, although the actual market quotations are not high.

**ACID (TARTARIC).**—Slightly firmer, and for foreign 1s. 2 $\frac{1}{2}$ d. per lb. is now asked, though perhaps a little might yet be secured at a shade less. *Powder*, 1s. 2 $\frac{1}{2}$ d. English brands up to 1s. 3d. per lb.

**AMBERGRIS.**—Of fine grey quality our market is almost bare at present, the nominal quotation for such ambergris being from 9l. to 9l. 10s. per oz. Second quality, good flavour, but rather dark, is held for 7l. per oz.

**ANISE (STAR).**—This article is still offering at 92s. to 92s. 6d. per cwt., c.i.f. terms, for arrival, but there are no buyers. On the spot the price is nominal, at 110s. to 115s.

**BENZOL** has advanced considerably this week, 4s. 6d. being now quoted on the spot for 90-per-cent., while for delivery from 4s. 7 $\frac{1}{2}$ d. up to 4s. 9d., according to time, is asked.

**CAMPHOR (CRUDE).**—Very steady, but without much business, at 160s. per cwt., on the spot. The *Denbighshire*,

which arrived to-day, brings a supply, but it is not yet known how much.

**CAMPHOR (REFINED).**—Very firm; for *German* bells 1s. 10d. net is asked, while the *English* makers still quote 2s. usual terms, but there is some German camphor offering at 1s. 9 $\frac{1}{2}$ d. to 1s. 9 $\frac{3}{4}$ d. yet.

**CANTHARIDES.**—*Russian* flies are offering a little lower at 3s. 3d. c.i.f., while on the spot a fair quality may be bought at 3s. 5d. per lb.

**COCA LEAVES.**—On the occasion of the cinchona auctions held in Amsterdam on Thursday last 21 packages of Java coca leaves were included. These sold at the rate of 7 $\frac{1}{2}$ d. per lb. for powdered leaf, and from 1 $\frac{3}{4}$ d. to 7 $\frac{1}{2}$ d. per lb. for whole leaf.

**COCA BUTTER.**—At the usual monthly auctions held on October 7, 250 2-cwt. cases of Cadbury's cocoa butter sold at a fractional decline—viz, 15 $\frac{1}{4}$ d. to 15 $\frac{3}{4}$ d. per lb., against 15 $\frac{1}{2}$ d. last month. In Amsterdam 66 tons of Van Houten's brand sold on the same day at about 15 $\frac{1}{10}$ d. per lb.

**CINCHONA.**—The supply offered at Tuesday's auctions was somewhat in excess of the average of recent sales. It consisted of:—

	Packages	Packages	
Ceylon bark .. ..	1,561	of which 1,458	were sold
East Indian bark .. ..	403	" 385	"
Java bark .. ..	62	" 62	"
South American bark.. ..	970	" 503	"
W. C. African bark .. ..	1	" 1	"
Total .. ..	2,997	" 2,409	"

It was believed in some quarters that the sales, in sympathy with those held in Amsterdam last week, would exhibit a dull tone with an easier tendency, but such was by no means the case. From the outset the competition was strong, and as the sales proceeded the demand improved, and the equivalent of the preceding sale's rates was willingly paid. The unit is generally placed at 1 $\frac{1}{2}$ d. to 1 $\frac{3}{4}$ d. per lb., a few parcels even reacting the twopenny unit. There was a very considerable supply of Succirubra bark from Ceylon, and a few lots of fine renewed chips and shavings realised extreme values. Ledger barks were poorly represented; but there was a very good show of Officialis chips from India and Ceylon. Cultivated South American Calisaya, too, was unusually well represented, over 25 tons of it being sold at steady rates. Altogether the extraordinary proportion of 92 per cent. of the supply offered was sold.

The following are the approximate quantities purchased by the principal buyers:—

Agents for the	Lbs.
Mannheim and Amsterdam works ..	229,983
" Auerbach factory .. ..	70,816
" Frankfort o/M. and Stuttgart works ..	66,347
" American and Italian works ..	58,420
" Brunswick works .. ..	46,374
Messrs. Howards & Sons .. ..	31,334
Mr. Thomas Whiffen .. ..	11,290
Agents for the Pelletier works .. ..	3,850
Sundry druggists.. ..	41,016
Total quantity sold .. ..	559,430
Bought in or withdrawn .. ..	57,601
Total quantity offered .. ..	617,031

The following prices were paid for sound bark:—

**CEYLON BARK.**—*Original.* Red varieties: Very thin weak twigs,  $\frac{3}{4}$ d.; low woody chips, 1 $\frac{1}{4}$ d.; fair to good bright quilly chips (a very large quantity), 2d. to 3 $\frac{1}{4}$ d.; a few fine lots, 4d.; fair chips and shavings mixed, 2d. to 2 $\frac{1}{2}$ d.; fair to good bright spoke-shavings, 2 $\frac{1}{2}$ d. to 4d.; a large quantity of root, dark and dusty to good strong, 2d. to 6 $\frac{1}{2}$ d. per lb. Yellow varieties: Very poor and dull stem chips, 2d. to 3 $\frac{1}{2}$ d.; medium rather irregular quill, 5d.; good strong chips, 7 $\frac{1}{2}$ d. per lb. Grey varieties: Poor to fair branch and stem chips, partly quilly mixed, 2 $\frac{1}{4}$ d. to 4d.; fine silvery ditto, 5 $\frac{1}{2}$ d. to 6d. per lb.; fair chips and small shavings, 2 $\frac{1}{4}$ d. to 3 $\frac{1}{4}$ d.; root, from 5d. to 9d. per lb. Hybrid chips, 2 $\frac{1}{2}$ d. to 5d.; root, 4d. to 5d. per lb. *Renewed.* Red varieties: Fair to good bright quilly chips, 3d. to 5 $\frac{1}{2}$ d.; a few very fine lots, 6 $\frac{1}{2}$ d. to 8d. per lb.; spoke-shavings, fair partly woody to good bold bright, 3 $\frac{1}{2}$ d. to 6d.; a few fine lots, 6 $\frac{1}{2}$ d. to 7d. per lb.; good chips and shavings



mixed, 5½d. to 6d. per lb.; strong quilly yellow chips, 10d. per lb.; grey chips, fair to good strong quilly, 5d. to 8½d. per lb.; good to fine rich shavings, 9d. to 1s. per lb.; hybrid chips, 5d. to 6d. per lb.

**EAST INDIAN BARK.**—*Original.* Red varieties: Chips, poor and woody to fair bright quilly, 1½d. to 3½d.; good mossed chips, 4d. to 4½d.; chips and shavings mixed, 2½d. to 3½d.; fair root, 5d. per lb. Yellow varieties: Fair mixed chips, 5½d.; fine strong broken quill and chips, 1s. per lb. Grey varieties: Fair to good quilly chips, 2½d. to 4½d.; fair to good bright chips and spoke-shavings, 4d. to 5½d.; good strong root, 7d. per lb. *Renewed:* Red chips, good quilly, 3½d. to 6d.; fair to good strong quilly shavings, 4½d. to 6d. per lb. Yellow, good quilly renewed chips, 8½d. to 9d. per lb. Grey chips, good quilly, 5d. to 6d.; rather dusty but strong ditto, 7d. per lb.

**JAVA BARK.**—Dull red chips, 3d. to 3½d.; ditto root, 8½d. per lb.

**WEST COAST OF AFRICA BARK.**—One 87-lb. case of damaged dull and irregular red quill sold at 6d. per lb.

**SOUTH AMERICAN BARK.**—Of 858 packages cultivated Bolivian *Calisaya*, 503 packages (altogether 58,450 lbs.) were sold at 9d. to 9½d. for good medium; silvery but irregular quill, at 9d. to 9½d.; ordinary broken quill, at 7d. to 7½d.; and damaged lots, at 6½d. to 7½d. per lb. For a parcel of old *Soft Colombian* bark 1½d. was refused; and 112 serons *Pitayo*, 1880 import, were also bought in, an offer of 2d. per lb. being declined for part. Bold flat reddish but damaged *Carthagea* is held for 8d. per lb. The following are the analyses of some of the lots sold:—

	Per cent. Quinine Sulphate	Price per lb.
1,260 lbs. Ceylon <i>Succirubra</i> original shavings ..	1.8	4d.
2,955 " <i>E. Indica</i> Officialis " chips ..	2.40	4d.
3,080 lbs. Ceylon succir. renl. chips, 2.18 per cent.	3½d. to 4d.	per lb.
4,540 " " " root 1.53	2½d.	"
4,730 " " hybrid chips 1.25	2d. to 2½d.	"
1,920 " " " root 1.74	4d.	"
4,420 " " officin. rend. chips, 2.40	5d.	"
22,500 " " " chips 1.71	3½d.	"
6,810 " " succr. " 1.76	3½d. to 4d.	"
6,930 " " officin. rend. chips, 3.15	5½d. to 6d.	"
1,560 " " hybrid " 2.64	5d.	"

The exports of cinchona from Ceylon in the periods between January 1 and September 11 have been:—1890, 6,003,165 lbs.; 1889, 6,884,526 lbs.; 1888, 8,549,429 lbs.; and 1887, 9,187,414 lbs. The highest price brought by manufacturing bark at the last Amsterdam sales was 1s. 2d. per lb. This was paid for a parcel of 7 packages broken Ledger stem quill, testing 8.88 per cent. quinine sulphate. The average of all manufacturing barks offered was 4 per cent. The Dutch brokers call the result of the sale "very disappointing," some of the principal manufacturers abstaining altogether from buying. Druggists' barks, on the other hand, were in strong demand, at a considerable advance for fine silvery mossed and broken quill.

**CREAM OF TARTAR.**—Slow of sale, and weak. Best white French crystals 99s, perhaps 98s. 6d. per cwt.; powder 100s.

**CUTCH.**—A firm market with sales at full prices, especially in the better brands. Business in *Bull* brand is reported at 32s. per cwt. in Liverpool.

**ERGOT of RYE.**—The parcel of fine bold *Spanish* ergot offered at the last auctions has since been sold, we understand, at 1s. 3d. per lb. For good *Russian* 1s. 1d. is asked on the spot.

**GALLS (CHINA).**—Business is restricted to a few lots, about 80 cases fair middling having changed hands at 62s. per cwt. this week. A few days previously 64s. was obtained for good clean sifted *Japanese* galls.

**GALLS (TURKEY).**—Business has been done in blue galls this week at 55s. to 57s. 6d., according to quality; for green, 48s. and 49s. is asked; and white galls, which are exceedingly scarce, are held as high as 47s. 6d., relatively much too dear.

**GAMBIER.**—Lower prices prevail on the spot—where block has sold at 22s. 9d. per cwt., against 23s. 3d. recently asked—and for early shipment, September-October having

changed hands at 23s. down to 22s. 9d. per cwt. But for distant shipment the article is looking better, up to 23s. 4½d. per cwt. being quoted in that position.

**GUM ARABIC.**—After a prolonged period of quietness a good demand for East Indian gums, especially Ghatti and good pale Kurrachee gum was reported early this week, and some 1,500 cases were reported sold at firm prices, mostly for export to the States. At to-day's auctions a very large quantity, amounting to over 4,000 packages, was offered. About three-fourths of this consisted of East Indian gums, for which, generally speaking, a very good demand was manifested, prices maintaining the advances that have been paid privately lately. As compared with the previous auction rates, *Red Amrad* and *Kurrachee Amrad* brought from 5s. to 8s. advance; while *Ghatti* sold at an improvement of 3s. to 5s. per cwt., but slightly below the highest private sale rates. For *Aden* gums, especially fine qualities, exorbitant prices are asked, business being restricted thereby. The demand is particularly good for medium qualities. Of *Senegal* gum, 10 bales very common Galam sold at 60s. per cwt.; for fine Bas du fleuve, for which there is some demand privately, the quotation is 77s. 6d. to 80s. per cwt. Only a few packages *Mogadore* gum were sold, ordinary dusty to fair bold brown Baroary at 38s. to 59s., small Amrad at 44s. and fine pale frosted white gum at 11l. per cwt. Good soft ambery *Cape* gum realised 68s. to 71s., good small siftings 48s., common blocky glassy brown 15s. to 17s. per cwt. Of small orange *Gehzirah* a few bags brought 52s. 6d. per cwt. The following are the prices obtained for East Indian gums:—*Ghatti*: ordinary dark to good, 25s. to 47s.; fine pale, 51s. to 57s.; pickings, 10s. to 18s. 6d. per cwt. *Amrad*: ordinary dark to good amber drop, 34s. to 54s. *Kurrachee*: common to fine soft amber, 51s. to 87s. per cwt. *Aden*: good clean palish sorts, 55s. to 58s. per cwt. A few lots insoluble but bright orange and pale *Persian* gum brought 16s. to 20s. per cwt.

**GUM BENZOIN.**—In Holland stocks are small, and the demand has greatly improved of late, much of the first-hand holdings having been cleared. Good and fine grades of *Sumatra* gum are particularly scarce and wanted.

**GUM OLIBANUM.**—The market is flat, and very little business is being done at present. At to-day's auctions over 400 cases were offered, but only a few lots sold at 30s. for fine reddish drop; pickings, 17s. 6d.; and small siftings, 11s. 6d. per cwt.

**INDIARUBBER.**—The market has become flat, and it would now be possible to buy fine *Pará* at 3s. 8d. per lb. The medium qualities, however, keep fairly steady, and have not been much influenced by the decline. There is an almost total absence of speculation, business being confined to a few orders for consumption.

**INDIGO.**—The market for East Indian indigo remains very firm, and higher prices are being paid privately for small lots. The estimate of the *Bengal* crop, which last year gave 143,250 maunds, is cabled at 100,000 maunds only, and the *Madras* crop is also doing badly. A sale of 1,367 chests of *Java* indigo was held in Amsterdam yesterday, when nearly the whole quantity offered sold at 6d. per lb. advance. At the beginning of the month the stock of this variety (in the first hand) consisted of 2,100 chests in Amsterdam, and about 600 chests in Rotterdam. Professor Heumann, of Zürich, announces that he has succeeded in manufacturing indigo by a new synthetic process—viz., by heating phenylglycocol (a substance which can be easily prepared from aniline and monochlor-acetic acid) with an alkali, dissolving the product in water after cooling, and exposing it in shallow dishes to the action of the air, when pure indigo blue is separated. The process has been patented, and has been secured by one of the leading German aniline-works.

**IPECACUANHA.**—Business has been restricted to a few packages at steady prices. Usual quality root is firmly held at 8s. 3d. per lb. by the importers. An arrival of 33 packages has taken place.

**KOLA NUTS.**—Prices are still on the rise, extraordinary figures being now required by the holders. A parcel of fresh kolas of fair quality was offering at 2s. 1½d. per lb. this week, and for very poor shrivelled and wormy dried seeds 2s. 6d. is the price named, an offer of 1d. per lb. less



having been refused. There are also offers of similar wormy quality at 2s. per lb., c.i.f. terms, net. In Liverpool sales have been made at 2s. 1½d. per lb. on the spot.

MUSK.—A fair trade at steady prices is reported in *Tonquin* pod musk.

OIL (ALMOND).—Sweet oil of almonds is held firmly according to quality at from 10d. up to 1s. 8d. per lb. The almond crop is this year again a small one, and the raw material remains quite as dear as it has been within the last two years.

OIL (CASTOR).—The Liverpool market is barely steady at 4d. per lb. for *Calcutta* seconds, while large arrivals of French oil have had a depressing effect. The quotation is 3½d. to 3¾d. per lb. for French oils. Reports from *Calcutta*, dated September 16, mention a firm and rapidly advancing market, with heavy sales for export and scarcely any stock left. Very little seed is coming forward for crushing, and it is said that large quantities have been bought up by the E.I. Railway Company, and by the Government for oil-pressing in the prisons.

OIL (MYRBANE).—At present, prices have not been affected by the latest advance in benzol, but there is a tendency towards higher rates. Best quality is held for 3½d., seconds from 7½d. down to 6¾d.

OILS (ESSENTIAL).—*Star-anise* is rather firmer, holders now requiring 6s. 6d. per lb. on the spot. *Lemongrass* oil has been sold in some quantity recently for September-November shipment at the improved price of 1½d. c.i.f.; on the spot 1½d. to 1¾d. is asked. For *Citronella*, ¾d. per oz. is required, but perhaps ¾d. would not be refused. As regards Italian essential oils, *Lemon* remains very scarce for available oil, which is quoted at 5s. to 5s. 9d. per lb. f.o.b., according to brand, but for delivery early next year the quotations are distinctly lower again, and there is not much confidence here that the high figures paid for this oil will be maintained. *Bergamot* keeps up better both for immediate and for future delivery, 12s. per lb. c.i.f. being the price for fine brands. *Sandalwood* oil is rather easier, and some of the makers would be disposed to make concessions, though they have not actually altered their prices. Fine English drawn oil is 16s. to 17s.; foreign, 14s. to 14s. 6d. per lb. *Cassia* oil steadier at 3s. 9d. to 3s. 10d. per lb. for pure oil. American *Peppermint* oil is dearer, at 12s. per lb. for the HGH brand. The price for French oil of *Lavender* is tending higher, and some of the distillers have put up their price by 6d. per lb. Common oil from petals, 3s. 3d. to 3s. 9d.; fine qualities, 7s. 6d. per lb. Algerian oil of *Geranium* is also about 10 per cent. dearer, sales of fine quality were made at the parity of 2s. last month; and now 2s. 2d. per oz. is wanted; French, 3s. 6d. to 4s. per oz.; Turkish oil, 7s. 6d. to 8s. per oz. Oil of *Cloves* cheaper in sympathy with the spice: English drawn to 3s. 8d. per lb. *Thyme* and *Rosemary* oils are also reported dearer from France. *Menthol* firm, at 8s. 6d. to 9s. for good white crystals. Essential oil of *Almonds* dearer; English at 28s. to 32s., according to quality.

OPIMUM.—The London market remains rather quiet, but steady. The prices are kept up at 13s. 6d. per lb. nominally for *Karahissar*, and 12s. for good seconds. The best qualities of *Soft shipping* are quoted up to 14s., but in fair to good lots business has been done at 13s. to 13s. 6d. *Persian* opium is held up to 14s. for fine; there has just been an arrival of this variety, and some shipments of the new crop are reported close at hand. The new *Turkey* opium continues to turn out of very satisfactory quality; *Tokat* is exceptionally fine; *Malatia*, on the whole, not so good. *Smyrna* reports, dated September 27, state that, although the September sales have not exceeded 200 cases, the market has gradually hardened, the last prices paid being new *Karahissar*, 13s. to 13s. 1d. per lb., f.o.b.; new *Karahissar* tale quale, 12s. 1d. to 12s. 2d. per lb., f.o.b.; old *Yerli* tale quale, 12s. 2d. to 12s. 6d. per lb., f.o.b.; Old usual run, 11s. 11d. to 12s. per lb., f.o.b. At the close, however, holders were less tenacious, and a slight decline on the above quotations was expected. The entire crop, it is now said, will not exceed 4,600 baskets, or say 4,200 cases, and the Dutch Government, who in the first instance only offered to contract for 420 cases, have now increased the quantity to 650, and may still require a further supply before the end

of the season. The future prices of opium will greatly depend upon the winter sowings, which take place this month in the upper districts; hitherto there has been a little rain all over the interior, but more will be required to ensure success.

QUICKSILVER.—The importers' price to-day still remains 10l. 10s., while the second-hand has declined to 10l. 3s., or 10l. 3s. 6d. per bottle, but it is thought that a change in the quotations is imminent, and it is pointed out that the export figures for September warrant a higher quotation than that which is now made.

QUININE.—The market is lower. Early in the week a sale of about 10,000 oz. German bulk, ex second-hand, was reported at 1s. 1d. per oz. on the spot, but we think that to-day there would be sellers at 12½d. per oz. It is said that a considerable quantity has been sold at 12½d. per oz. on the spot, but we have not been able to confirm that report.

SCAMMONY.—Quiet. The nominal price of the root is now 25s. per cwt., but we have not heard of any business lately.

SHELLAC.—The market continued to droop day by day until this morning. At the auctions only 346 orange and 31 cases *button* lac were offered, but only 50 cases sold, partly without reserve, at about 2s. decline on the preceding auction rates. Fair reddish unworked orange lac brought 92s. to 93s., and fair first unworked *button* 100s. per cwt. To-day a complete change again occurred in this article, and although the market opened flatly this morning, a total of about 5,500 cases had changed hands for delivery at the close of the day, at a recovery of from 3s. to 5s. from the lowest point, which was about 24s. under the top price. The following were the prices paid at the call:—

		Oct.	Nov.	Dec.	Jan.	Feb.	Mar
Orange TN, sellers	..	Sales	Nominal	1,100	Sales	500	500
		at		at	at	at	at
" buyers	..	91/		90/6	92/	89/	88/
				to 92/	to 92/6		

Garnet AC, nominal and without business.

Since the call further transactions have been made in TN: for January delivery, at 93s. and 93s. 6d.; October, 93s.; and February, 91s.; while for December 95s. is said to have been refused.

SOY.—China soy is steady at 1s. 3½d. per gallon.

SPONGES.—Yesterday a parcel of 444 cases bonecomb sponges, recent import from the Piræus, was offered for sale by auction. About 100 cases sold at the following prices per case: first quality, 7l. 17s. 6d.; second, 6l. down to 4l.; third (of which the bulk of the parcel consisted), at 4l. 12s. 6d. down to 2l. 5s. per case.

STRYCHNINE.—Firmly held at 2s. 4d. from the makers. *Nux vomica* remains scarce.

TONQUIN BEANS.—There has been an arrival in Liverpool of 13 cases direct import from *Pará*. This variety remains very scarce, and high prices are certain to be asked for these consignments. *Angostura* beans are a little weaker, say, 6s. 6d. per lb. London terms for fine quality.

TURMERIC.—Market steady at the prices last quoted. Reports from India, dated September 16, speak of rumours of ruin of the crops by floods, plants being under water in nearly every district. There is, however, a fair stock of old but wormy turmeric still lying in *Calcutta*.

## CHEMICALS IN THE NORTH OF ENGLAND

PRICES OF CHEMICALS on the whole have been fully sustained during the past week. *Caustic soda* and *Bicarbonate of soda* in particular have been in strong request, and makers have in consequence disposed of the greater part of their production for this month, so that the market closes firm. *Soda ash* has also been in good demand, and the quantity available for disposal to end of the year is said to be small.

BLEACHING-POWDER is the only article of manufacture which shows signs of weakness. There is more disposition on the part of consumers to contract for next year's de-



liveries and sales of bleach, caustic, and soda ash at Uo n prices.

THE EXPORTS OF CHEMICALS FROM THE TYNE for the first three quarters of the present year, as compared with the same period of last year, show an increase of 12½ per cent. The quantities are as follows:—

	1889	1890
	Tons	Tons
Alkali and soda ash ..	10,631	11,857
Bicarbonate of soda ..	84	53
Bleaching-powder ..	15,282	21,493
Manure ..	12,274	6,65
Soda crystals ..	12,194	11,172
Sulphate of soda ..	363	1,521
Caustic soda ..	—	3,953
Other chemicals ..	9,353	12,189
	70,151	78,913

BICARBONATE OF SODA very firm, with little offering for prompt, makers being fully sold for early delivery. Price 6*l.* 10*s.* per ton, in 1-cwt. kegs, f.o.b. Liverpool.

BLEACHING-POWDER [market quiet, and prices on the whole easier. More demand for hardwood packages. Prompt softwood casks, 5*l.* 2*s.* 6*d.* to 5*l.* 5*s.* per ton at makers' works Widnes and St. Helens; hardwood, 5*l.* 15*s.* to 6*l.* per ton, f.o.b. Liverpool. A good business doing over next year at 6*l.* per ton on rails. Tyne market steady, but not much doing for prompt. Some sales are reported at 6*l.* 5*s.* for softwood, and 6*l.* 10*s.* for hardwood, over the whole of next year. For this month's delivery 5*l.* 3*s.* 9*d.* to 5*l.* 5*s.* is asked for softwood, and 5*l.* 7*s.* 6*d.* to 5*l.* 10*s.* per ton for hardwood, f.o.b. Tyne. For November-December delivery makers quote 6*l.* per ton for delivery on rails; Glasgow, 5*l.* 5*s.* to 5*l.* 7*s.* 6*d.* per ton; and ex ship Thames, 5*l.* 15*s.* per ton.

CAUSTIC SODA.—The slight easiness reported last week in this article was of very short duration. Market closes very firm, and makers are almost sold out for this month's production. For November-December delivery price is 11*l.* per ton for 70-per-cent., and 10*l.* per ton for 60-per-cent., and some makers are asking an advance on this. The combination price for 74-per-cent. has now been fixed for forward delivery, the minimum price being 11*l.* per ton, and several transactions have been effected at this figure for delivery over the first half of next year. For prompt shipment, price quoted for 60-per-cent. is 10*l.* 15*s.* per ton; 70-per-cent., 11*l.* 15*s.* per ton; and 74-per-cent., 12*l.* 10*s.* per ton; all f.o.b. Liverpool; 77-per-cent., very strong and scarce, at 12*l.* per ton, and 15*l.* per ton for ground caustic packed in 3-4-cwt. casks, f.o.b. Tyne. These figures are also quoted for November-December delivery.

CREAM CAUSTIC firm, at 9*l.* 5*s.* to 9*l.* 10*s.* per ton on rails Widnes and St. Helen's; and 9*l.* 10*s.* to 9*l.* 15*s.* per ton f.o.b. Liverpool, according to brand. Makers are prepared to sell forward at current quotations.

CHLORATE OF POTASH firm, and in good demand. For prompt, prices range from 5½*d.* to 5*d.* per lb., less 5 per cent. discount, at the usual ports of shipment; 5½*d.* per lb. November-December; and 6*d.* per lb. over 1891.

HYPOSULPHITE OF SODA continues in excellent demand, particularly for foreign consumption, and prices are well maintained. One-cwt. kegs, 6*l.* per ton; casks, 5*l.* 10*s.* per ton, f.o.b. Tyne; on rails Liverpool and Manchester, 6*l.* 5*s.* and 6*l.* 15*s.* per ton.

SODA ASH.—Liverpool market stronger, and makers have little to dispose of up to end of this year. Prompt, 1½*d.* for caustic, 1½*d.* to 1½*d.* for carbonated, less 3½ per cent. f.o.b. Liverpool. For delivery from November to end of 1891, price is 1½*d.* Tyne market steady at 1½*d.*, less 7½ to 8 per cent. for prompt. Some sales are reported over next year at 1½*d.*, less 3½ per cent.

SODA CRYSTALS continue steady. For prompt and forward deliveries at 3*l.* to 3*l.* 2*s.* 6*d.* on rails, and 3*l.* 5*s.* to 3*l.* 7*s.* 6*d.*, f.o.b. Liverpool, in barrels net; for prompt, 2*l.* 15*s.* gross, f.o.b. Tyne.

SULPHATE OF COPPER.—Quiet, but steady, at 19*l.* to 19*l.* 10*s.* per ton, f.o.b. Liverpool. For early next year, 21*l.* 10*s.* per ton asked, with sales at 21*l.* per ton.

## LONDON DRUG STATISTICS.

THE following figures refer to the stocks of drugs in the port of London on September 30, 1890, and to the imports and deliveries during the first nine months of 1890.

Article	Stocks		Imported		Delivered	
	1890	1889	1890	1889	1890	1889
Aloes ..os & pkgs	9,615	7,371	5,717	2,959	4,340	2,577
.....gourds	1,050	1,655	238	378	532	772
Arise, Star ..chts	54	71	14	40	31	102
Arrowroot ..cks	10,496	13,545	11,714	12,403	12,223	9,727
.....bxs & tins	2,805	5,983	246	1,729	3,535	3,603
Balsams ..cks, &c.	2,428	2,566	651	266	667	344
Bark (Cinchona), S.American cases	406	484	9	12	65	734
.....bls, &c.	26,523	33,463	5,744	10,176	11,296	10,981
E.I., Ceylon, and Java ..cks	412	557	401	932	389	971
.....bls, &c.	26,553	25,792	34,495	37,799	32,016	33,915
Borax ..cks	2-1	565	21	6	236	52
Calumba ....	1,431	1,749	430	652	823	747
Camphor ....	6,557	573	12,618	2,128	6,034	2,692
Cardamoms ..chts	1,073	1,444	2,287	2,749	2,559	1,884
Coc. Ind. bgs, &c.	334	182	787	94	625	261
Colicinal ..srs	4,170	4,255	3,186	2,652	3,119	3,312
Cream of Tartar cks	20	17	86	30	76	26
Cubebs ..cks	143	337	211	643	377	393
Dragons' Blood chta	125	173	127	193	143	100
Galls, China, &c. os	3,642	1,407	5,069	2,412	2,393	3,130
Tu -y &c. ....	5,643	6,516	7,623	8,338	5,718	5,539
Gums—						
Ammoniac pkgs	60	112	6	6	37	19
Animi & Copal pkgs	6,351	5,079	7,763	5,596	11,076	5,483
Arabic ..cks	18,363	24,040	19,465	24,477	22,938	19,968
Asafoetida ..	605	510	492	897	258	735
Benzoin ....	2,438	2,244	2,747	2,708	2,402	2,351
Damar ..cks	7,263	3,995	7,350	5,414	5,243	4,929
Galbanum ..	34	7	24	7	24	—
Gamboge ..	58	89	219	255	224	269
Guaiaac ..	42	12	48	115	35	119
Kino ..cks	39	121	7	58	87	24
Kowrie ..tins	730	1,258	1,518	1,977	2,094	1,989
Mastic ..cks	9	40	2	26	20	17
Myrrh ..cks	477	417	406	270	371	398
Olibanum ..	6,081	5,038	8,050	8,045	5,717	5,705
Sandarac ..	449	581	1,129	717	1,034	893
Tragacanth ..	6,353	8,992	5,189	8,311	6,236	5,057
Indigo, E.I. ....						
.....Spanish ..	1,234	2,119	3,318	3,589	5,577	3,549
Ipecac. ....	280	439	1,017	1,006	929	675
Jalap ..cks	79	71	70	1	62	17
Lac Dye ..chts	5,321	5,750	—	—	318	130
Nux Vomica pkgs	705	336	5,129	502	4,592	1,234
Oils—						
*Anise ..cks	36	66	90	239	147	182
*Cassia ..cks	28	71	303	238	307	215
Castor ..cks	136	363	1,145	670	1,220	881
.....srs	2,007	2,370	4,708	3,187	5,918	7,825
Cocoa-nut ..tins	20	2,079	2,872	3,541	4,666	2,855
Olive ..cks, &c.	1,430	940	5,176	3,423	4,544	2,841
Palm ..cks	9	24	45	74	56	110
Opium ..chts, &c.	1	1,205	1	537	1	949
Rhubarb ..chts	745	840	1,112	342	1,216	1,075
Safflower ..bls, &c.	405	524	119	32	174	97
Saltpetre ..tins	952	185	4,056	2,980	3,334	3,479
Nitrate of Soda ..	1,617	489	19,200	12,031	16,627	13,802
Sarsaparilla ..bls	235	314	918	911	951	983
Senna ..chts	2,514	1,350	3,415	1,352	4,052	1,900
Shellac, Orange chta, &c.	32,400	43,302	16,051	15,520	24,431	19,052
Garnet ..	6,014	13,148	4,403	6,456	8,231	8,517
Button ..	5,441	6,052	6,092	4,549	6,811	6,329
Total chta ....	43,855	62,502	26,546	26,635	33,573	33,898
Stieklaos ..chts, &c.	2,172	3,523	58	90	952	1,248
Gambier ..tins	1,175	653	8,661	6,305	8,181	6,811
Onch ..cks	3,013	3,273	1,558	2,976	1,449	3,067
Turmeric, Beng. tins	1,046	1,404	26	355	374	412
Madras, &c. ....	791	1,283	184	42	549	503
Total ..tins	1,837	2,687	210	377	923	915
Vermilion, chta, &c.	43	15	129	110	205	111
Wax, bees' ..bris &srs	697	824	3,693	903	3,737	625
.....cks & os	1,252	1,154	2,163	2,457	1,840	2,370
.....oakes	14	9	68	204	78	105
.....Japan ..pkgs	1,319	1,105	481	615	807	951

\* The stocks of oils of anise and cassia at Smith's warehouse and Brewer's quay, the principal storage places for these articles, are kept secret.

† No returns of any value can be given regarding the present stock of opium, as the firm in whose warehouse the bulk of this drug is stored decline to furnish information.



## NOTES ON ESSENTIAL OILS.

(From Messrs. Schimmel &amp; Co.'s Report)

**ANISE OIL.**—Reports from Russia agree that the anise crop of this season has yielded an excellent return; on the other hand, it is said to be a fact that the depressed prices of recent seasons have again caused a reduction in the area of the sowings, the influence of which has been neutralised solely by the climatic conditions, which have been exceptionally favourable to the growth of the seed. The average yield of the cultivated surface must in reality be an unusually large one, for, in spite of the high rate of Russian exchange, the offers which are now in the market are lower than last year. The 1890 seed is of a fine green colour—that is to say, it has been harvested dry—but it is small, and again suffers from the old evil of containing many impurities. At the first anise market, held on August 26 (O.S.), at Krasnoje, about 3,000 tons of anise were offered; the whole of this was sold in the proportion of about 2,500 tons for export, and the remainder for home consumption. The market closed at higher prices. For the second market, which takes place a fortnight later, very small offerings are expected, as, owing to the early harvest, at least four-fifths of the whole yield were already in condition to be forwarded to the first market. Experts are of opinion that the rate of exchange, which so seriously hampers the export of produce, must sooner or later also affect the price of anise. It is also said to be without any doubt that, owing to the distressing experience of the last three seasons, the cultivation of anise in Russia will very seriously diminish, as its expenses are not covered by the returns. On the other hand, the world's production of anise has grown almost without interruption, not only in Russia but also in Spain, Italy, Syria, and Turkey. Recently India has also entered the field. Concurrent with this increasing production there has been a decrease in the consumption of at least 50 per cent.

**CASSIA OIL.**—As a sequel to the Reports of October 1889 and April 1890, it has been found that the imports which have been received by us since April last have yielded the following results:—

Brand	Specific Gravity	Residue of Distillation	Percentage of Aldehyde
Cheong Loong ..	1.061	8 per cent. soft.	77 per cent.
Yan Loong ..	1.061	6 " "	77 "
Yan Loong ..	1.058	8.5 " "	73 "
Ye Tac ..	1.060	7 " "	77 "
Ye Tac ..	1.062	13 " hard.	45 "

These results show that the brands Cheong Loong and Yan Loong may be named as those which furnish the best average quality. Unfortunately, along with the better quality, an adulterated oil continues to be regularly quoted in Hong Kong at 12 to 15 dollars per picul less than the finer oil. The brand of Ye Tac referred to above is a type of this adulterated oil, and it is noteworthy that neither the tins nor the cases contain any marks indicating the contents to be of secondary quality. This necessitates the precaution of only buying Cassia oil according to its percentage of aldehyde, and to insist that the latter shall be specified on the invoice by the importer or intermediary. There is no doubt that such of the Hong Kong merchants as are willing to accede to this reasonable demand will receive the lion's share of the business.

**SICILIAN ESSENCES.**—During the early months of the year the course of business in these oils was quiet and normal, with firm although moderate prices. Quite contrary to the ordinary experience, the quotations when the hot season set in began to advance, less because of an exceptionally strong demand than as a result of disquieting symptoms in the outlook for the new crop, but nobody could have expected that the advance in prices would even approach such dimensions as has really been the case. Some orders which had been kept back and which had to be executed at any cost gave an additional fillip to the advancing movement, and brought about a condition in the market such as has not been seen for many years. Generally speaking, the prospects for the new

crop in Sicily and Calabria are not favourable, and the leading firms all anticipate higher prices. Nevertheless, after the many disappointments which the last few years have brought us in this respect, it will be advisable to use exceeding great caution in accepting the sensational reports that are current, and quietly to wait the development of affairs. The competition of Florida, with a production of several millions of cases of oranges and lemons, should not be under-estimated. In California also the fruit production increases from year to year. In 1889 it reached 796,409 cases in the counties of Los Angeles, San Bernardino, and Ventura. A possible decrease in the export of Italian fruit would place an abundance of material at the disposal of the manufacturers of essences, and thereby possibly have the effect of checking the excessive advance in the prices of the oils.

**BERGAMOT OIL.**—Concerning this important article the following original report was received a few days ago from one of the first firms in Reggio:—"The agitation which developed here during the months of December and January of last year has in the meantime been brought to a close through the influence of the Banco Nazionale di Napoli, the director of which, who was at the same time principal agitator, has resigned. Nevertheless, the movement has attained some success, and the proprietors of bergamot plantations have thereby been fortified in their determination to keep back the supplies, as they think they will be further able to dictate the prices of this article because of its indispensability in the perfumery and eau-de-Cologne industries. The most efficacious means of meeting this presumption will be only to buy small quantities as the want occurs. Contrary tactics, in view of the greediness of the planters, might bring about the most extraordinary movements in prices. The coming crop will not be a large one, although somewhat better than that of last year. The cause of the small yield is an insect called 'Pidocchio,' which attacks the fruit itself and causes great damage to the plants. This insect has made its appearance during the last few years, and has arrested any increase in the production which might have been expected from the large extension of the plantations. Generally, however, this circumstance is not looked upon with alarm, because but for this insect the production would have assumed extraordinary dimensions, and caused a total demoralisation of the market."

**OIL OF LEMON.**—From personal observation in the various lemon districts of Sicily, this year's crop will be about 25 per cent. less than last year's. The fruit, generally speaking, is sound, of good shape, and shows only a small proportion of inferior quality; consequently the greater part of it can be used for eating purposes and packed in cases. The oil production, therefore, especially in the months of November and December, will be very small. Lemons in cases already realise high prices, and the planters will naturally prefer to use their fruit for this purpose instead of selling it for pressing oil. The stock of 1889 oil is said to be very small indeed, and it finds buyers at continually rising prices. The reports from Calabria entirely agree with those from Sicily. It is understood that the chief vehicle for blending bergamot is lemon oil. If the former is scarce and maintains its high price, large quantities of the latter will be used for blending purposes, and the present scarcity of oil of lemon is solely ascribed to this strange circumstance.

**AN EXHIBIT FOR THE WORLD'S FAIR.**—A St. Louis journal has a "Constant Reader," whom it should send to the World's Fair, along with any others of the same kind. This specimeneu writes:—"I am a man 35 years old. At 15 I was put into a village drug-store, not apprenticed, but employed at a very small sum, to earn which I had to do anything about the shop that I was able to do. I had had a common—very common—country-school education up to that time, and since then, up to within the past few years, I have had to work very hard for a living. I am now proprietor of a drug-store, and have some leisure. I deeply feel the necessity for a better education, and am anxious to make amends, as far as possible, for the lack of earlier opportunities. I have read and studied some by myself, but I do not know enough to be able to choose the right kind of books, and I beg as a favour that you will suggest, either by private letter or through your paper, the best course for me to pursue."





### Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

### Concentrated Tinctures and Infusions.

SIR,—In his last letter, Mr. Martindale makes a desperate, if not a very dexterous, effort to shift his ground, and thereupon proceeds, like the famous warrior of La Mancha, to engage in deadly combat with an inoffensive windmill.

Mr. Martindale, in taking up his parable against concentrated infusions, performs the somewhat unnecessary feat of slaying the slain, though even here his cup-of-coffee illustration affords another instance of the phenomenal confusion which marks the condition of his ideas on the subject. The aroma and *verve* of a cup of "freshly-prepared coffee," depend upon its being taken hot, whilst medicinal infusions are allowed to become cold. The distinction is vital.

If it were intended that an infusion should be administered to the patient in the condition in which one usually takes a cup of tea or coffee, it might be contended with reason that no other method of extraction would give a precisely similar result. But the infusion is not taken hot: it is allowed to cool, and, when cold, it contains neither more nor less of the soluble constituents of the drug than if cold water, properly used, had been employed as the solvent.

What is the object of the process of infusion? Stripped of cant, it is to obtain in a rough-and-ready manner, and as quickly as possible, an extract of the drug in a conveniently weak and inexpensive form. Infusions first made their appearance in the London Pharmacopœia in 1720,\* and from that time to the present the official directions for preparing them have remained practically unaltered.

If Mr. Martindale does not think it possible to improve upon a process introduced 170 years ago, modern pharmacy must be, to adopt his favourite word, a "sham."

The reason that concentrated infusions prepared by the ordinary methods have been such an utter failure is that manufacturers have endeavoured to concentrate by heat delicate vegetable solutions, the characteristic ingredients of which were frequently volatile! Hence, as Mr. Martindale justly observes, there is no comparison between a freshly-made infusion of huchu and the rapid, tasteless, heat-concentrated product.

It is not my desire to make use of this controversy to advertise the preparations with which my name is associated, but it is a necessary part of my argument to point out that it is possible to produce "liquors" in a concentrated form, without heat, which will retain in perfect solution all the soluble constituents of the drugs, and which will yield on dilution infusions indistinguishable in strength, flavour and aroma, from the freshly-made preparations. But I relinquish the pursuit of Mr. Martindale's red herring, and return to the main point at issue.

\* It is curious to note that in the revised edition of 1724, the name *Infusum* is expunged, and the three infusions of 1720 appear as *Decocti*, the only distinction preserved being the use of the word *infunde* instead of *coque*. In the Pharmacopœia of 1746 the *Infusa* (as such) reappear, and here for the first time we find the expression *Macerata* in connection therewith. In the next edition (1788) *Infusum Amarum Simplex* becomes *Infusum Gentiane Comp.* and *Aqua bulliens* gives place to *Aqua fervens*. In 1809 the number of infusions is raised from 4 to 18, the average strength being one drachm to the pint. — F. W. F.

In his first letter Mr. Martindale asserted that a concentrated tincture, being "something to make something else of," was a "sham." He repudiates my suggestion that this last word was used by him in a Pickwickian sense, and, in his second letter, not only elings to it but goes on to say that "concentrated tinctures and infusions, when diluted and sold respectively as tinctures and infusions, are 'not of the nature, substance, and quality of the article demanded.'"

The inference which he intends his readers to draw from the words quoted is sufficiently obvious. Now, this is a very serious charge. Let us see on what grounds it is based. Mr. Martindale first exclaims, "How variable in solubility are the natural constituents of many drugs in alcohol of any strength!" It is not easy to isolate the idea which was uppermost in Mr. Martindale's mind when he wrote this sentence, but we may assume his meaning to be that, if we exhaust three different portions of the same drug with spirit of, say, 30 u.p., 15 u.p., and proof strength, the resulting extracts will differ widely in composition. This is not only perfectly true, but it is a result one would naturally expect, and it constitutes a fatal objection to the employment of fluid extracts prepared with menstrua of unknown strength for tincture-making. But in the case of concentrated tinctures or "liquors," such as my firm were the first to manufacture, and which Mr. Martindale covertly attacks, the objection falls to the ground. The only menstrua employed therein are the menstrua prescribed by the British Pharmacopœia, and to state that the relative proportions of material and solvent in the official formula are so nicely balanced that "it is impossible to prepare" more concentrated tinctures, is to make an assertion which, on the face of it, is absurd. In only five out of forty proof-spirit tinctures does the amount of extractive matter exceed 5 per cent., whilst in no less than thirteen it is below 2 per cent. Tincture of nux vomica contains 1.5 per cent. of the extract. Is Mr. Martindale prepared to assert that it is "impossible" to dissolve eight times that quantity of extract in the same volume of spirit? or would he designate a "concentrated tincture" so prepared as a "sham"?

I will ask Mr. Martindale a plain question: Has he ever taken the trouble to examine for himself the "concentrated tinctures" to which I have ventured to apply the "simple but much abused term 'liquor,'" or has he solely based his sweeping condemnation on *à priori* reasoning? He has denounced these preparations as "shams." If he has tested them, he can be at no loss to supply facts and figures which will support his statement. I shall not ask for quarter. The "liquors" are not put forward as makeshifts; they claim to yield tinctures more constant in specific gravity, more definite in strength, more uniform in physical characteristics, and more truly representative of the ideal official preparations than any other means afford. If Mr. Martindale can prove this claim to be worthless, he will earn the thanks of many hundreds of pharmacists; but if, on the other hand, he has no other ground for the opinions he has expressed than hearsay and imagination, then I call upon him, as an honourable man, to withdraw the imputations which he has too recklessly made.

Yours faithfully,

21 Miucing Lane, E.C.

F. W. FLETCHER.

### Standardised Liquid Extracts.

SIR,—Mr. Martindale has advanced an argument, based more on supposition than on actual fact, against the employment of "standardised" fluid extracts for the preparation of tinctures, infusions, and decoctions, and as you always observe the axiom "*audi alteram partem*," I take the opportunity of making a few comments upon the subject. As to the reason why pharmaceutical preparations should be standardised, many medical practitioners and pharmacists have remarked the absence from the Pharmacopœia of tests for strength and purity of tinctures. Why should not the specific gravity of properly made tinctures be given, and the percentage of extractive matter yielded by them be made a standard test? As long as this is not done, what guide has the dispenser that the tincture he orders from a wholesale house has been made with proof or rectified spirit, or been made at all by the B.P. process of maceration and percolation? Undoubtedly many fluid extracts made by the



process of percolation and evaporation are faulty, the volatile hydrocarbons sometimes being dissipated, and the strength of a tincture prepared from such an extract would not be equal to one carefully made from the crude drug; but if the extract is made by Squibb's process of cold re-percolation, and then "standardised," no better medium for the extemporaneous preparation of tinctures, infusions, &c., can be imagined. No one knows better than the pharmacist of to-day why he should avoid "cheap and valueless" preparations, and look only for those of good appearance and reasonable price. A short time ago opium (Persian) could be readily obtained containing 15 per cent. of morphia in the dry powder. Now, I would venture to ask, would not a tincture prepared from such a drug without standardisation be fraught with danger to the patient, if prescribed in full doses? Then, again, much of the emetine is destroyed in the acetic extract of ipecacuanha directed by the B.P. to be employed for making vin. ipecacuanhæ: would it not be better to employ a concentrated fluid extract prepared by Squibb's process, and containing a constant amount of the alkaloid? Facts are stubborn things, and are generally proof against argument. Certainly a definite amount of active principles or extractive matter in a given quantity of tincture is a fact, as compared with a preparation of the same nature represented by an unknown quantity.

Yours truly,  
NEMO.

#### Disintegrating Tabellæ.

SIR,—We thank you for your favourable notice of our new disintegrating tabellæ in to-day's issue of THE CHEMIST AND DRUGGIST, but must point out that by omitting to mention the important fact that we advertised these goods the week preceding the visit you received from the representative of another house, you leave it open to inference that we were not the originators of the improvement.

That on the fourth day after our advertisements appeared another firm should submit to you something similar, if not identical, is a curious fact that surely points to a different conclusion.

Trusting to your sense of justice to insert this letter in your next issue,

We are, yours faithfully,  
ALLEN & HANBURY'S.

Plough Court, 37 Lombard St., E.C., Oct. 4.

#### The Pharmacy Act Amendment Act (Ireland).

SIR,—I observe in your issue of September 27, a letter from Mr. Evans taking exception to some statement of mine, or rather the conclusion drawn by me, in relation to the present position of assistants.

Mr. Evans states that the object in omitting subsection 4, clause 6, was to insert an additional paragraph, and adds that he was always favourable to the registration of assistants, who had served a bona fide apprenticeship to the drug trade, without examination.

My statement referred to the action of the Pharmaceutical Council in relation to the Bill before Parliament, and in support of my conclusion I beg to give you the exact position occupied by the respective parties. As the Bill left the House of Commons and came before the Lords, clause 6, sub-section 4, read as follows:—

"A person who has, prior to the first day of January, one thousand eight hundred and eighty-nine, served as an assistant or apprentice and assistant for a full period of seven years to a chemist and druggist who has registered under this Act, or who, had he survived or continued in business, would have been entitled to register under this Act, shall be entitled to be registered as a chemist and druggist without examination on complying with the other provisions of this section."

The amendment put down in the name of the Marquis of Waterford on behalf of the Pharmaceutical Society, and carried in the House of Lords against the chemists and druggists, reads as follows:—

"Subsection 4, line 32.—Leave out the whole of the subsection and insert: Notwithstanding the provisions of sect. 31 of the principal Act, no person shall be entitled to keep open shop for the selling, retailing, or mixing of poisons by reason

that he was a chemist and druggist practising as such in Ireland on his own account at the time of the passing of the principal Act, unless he shall be registered as a chemist and druggist under this Act."

I presume any ordinary reader of this will say that the Pharmaceutical Council was not favourable to the registration of assistants without examination; and if Mr. Evans entertains a different view, I give him credit for being able to conceal his own views, while acting on behalf of his Council. If, on the other hand, it was the mind of the Council that assistants should be registered without examination, their action in throwing out the clause providing for this in this Bill is certainly not free from blame.

The matter cannot now be remedied, and I only address you to show the exact position that the respective bodies occupy in relation to the measure.

18 & 20 North Street, Belfast,  
October 7.

Very truly yours,  
JAMES H. HASLETT.

#### The Newcastle Fire.

SIR.—The same thoughts passed through my mind as Mr. Wilkinson's when reading the account of the lamentable occurrence at Messrs. Mawson & Swan's fire. Some years ago I used ammonia in a similar case, and prevented what might have been a very serious conflagration, having a very large stock of inflammable material adjoining. Three bottles of nitric acid were broken, the contents setting fire to straw, sawdust, &c. I immediately smashed some Winchester's of liq. amm. 880 on the burning mass, and remained in the same room until the whole had been cleared away without feeling any inconvenience. In addition to making the acid fumes inert, it produced an atmosphere around the spot where the accident occurred which was practically a non-supporter of combustion, so that water was only used for cleansing purposes after the debris had been removed.

Yours,  
A. EDGAR.

#### Antiseptic Gauze.

Mr. H. Helhing, F.C.S., writing in regard to the note on this subject which we published last week, says he cannot agree with Mr. Dott that antiseptic gauzes, such as the carbolised, should be required to have only a minimum content of antiseptic. At one time carbolised gauze certainly did hold the field, but even in this country its use is gradually decreasing, and it is being replaced by other antiseptic agents. Mr. Helhing thought it sufficiently clear that his remarks in the *Pharmacological Record* referred only to soft gauzes, and as the best criterion of their quality, an even distribution of the antiseptic as judged by the eye, is of first importance. That this uniform distribution is by no means universal can be readily seen by the examination of a dozen samples of iodoform gauze of which many will present the appearance of yellow and white stripes. These gauzes should also at once absorb water, and when placed upon its surface at once sink to the bottom whatever antiseptic may be present; this also has not been the case with many samples which have come under his notice. He also believes that the cheap gauzes are altogether an illusion, as surgeons have to use much more of them than of the better ones in order to fill a wound-cavity, and thus the use of the cheaper form of muslin is really more expensive than the dearer.

#### The Weekly Half-holiday.

SIR,—Why should not chemists close their shops early one day in the week? The answer to this question cannot be that their hours of employment are shorter than in other businesses, for I think there are few occupations where the public are served in such a slavish manner as by chemists. They open their shops in many cases at 7.30 or 8 A.M., and do not close till 10 or 11 P.M., having thus educated people to come at all hours. Not, however, satisfied with the six days' work, many open their doors on Sundays. It seems singular that chemists (educated men) should not unite, and close at a certain hour within reason every day; and after hours let urgent medicines be obtained by ringing specially



for them, and let this rule apply to Sundays. If this were the case no one would lose, and I am sure the public do not appreciate us any the more for our self-sacrifice. But, sir, my more immediate reason for writing is to try and obtain unanimity amongst our *confères* locally; the majority of trades in Southampton have decided to close at 5 P.M. on Wednesdays, commencing on October 15; cannot the chemists do the same? Some of the large firms are willing, and why not the smaller ones—who argue that, as they have no assistants to alternate the duty, if they shut their shops and go out their customers would go to the larger chemists, where someone is always kept on duty. In answer, I would say my experience is that the customers return in nineteen cases out of twenty. Our establishment is never opened on the Sunday, yet customers have told me many times they had to go to So-and-so, because they could make no one hear on the Sunday; still they come in the week, and this proves that the public do not appreciate chemists' self-constituted slavery. Again, we are met with this: "I would sooner be in the shop with the doors open than constantly answer the bell." I urge do consider the assistants, and masters who wish to be freed. If you keep open you influence others, who are bound in self-protection to do likewise, and thus the early-closing movement generally falls through.

Yours truly,

October 1. A SOUTHAMPTON CHEMIST. (146/40.)

#### Ready-made Physic.

T. H. D., Wolsingham (142/16), sends us an enormously long letter on this topic. He is surprised that the subject raised by the President of the British Pharmaceutical Conference has not called forth more communications. He thinks the present is a favourable opportunity for bringing about, if possible, a means to sever our connection from an unworthy branch of the trade, the major portion of which he regards as discreditable, unscientific, and tricky. He recommends that, first, the chemists should confer with the medical profession as to the best means of severing their connection with all "quack," or, as Mr. Umney dubs it, "ready-made," physic. In this the medical profession can greatly aid the chemists, "at the same time benefiting themselves by removing an obstacle that thwarts the skilful practitioner, thereby often robbing him of that hard-earned reward so patiently and justly merited, and which his patients (often thoughtlessly and impatiently) usurp by the introduction and recommendation to try some worthless nostrum brought under their notice." To balance the financial deficiency chemists would incur in sacrificing the patent-medicine trade, the Medical Council is to draw up "a list of simple remedies to be used for domestic purposes, together with a book of instructions, giving advice, dose, &c., for their use in simple ailments, which, made up into a family medicine-chest (if possible the collection made official), kept as a speciality by chemists, backed up with the recommendation by doctors, would, I think, with the sale of the same and replenishing of stock, supplant the unremunerative patent-medicine trade." The writer goes on to point out the advantages to enlightened pharmacists of relegating the patent-medicine trade to stores and unskilled traders; and he winds up with a lengthy dissertation on counter-prescribing to the same effect as has often been written before.

Our correspondent's letter would occupy about three columns if printed in full. We cannot spare anything like that space for such impracticable suggestions. Surely it is obvious that there is no atom of chance of inducing chemists as a body to give up the patent-medicine trade, setting aside the question whether there is any good reason why they should do so. There is exactly the same possibility of getting a family medicine-chest guide from the Medical Council. But there is no reason at all why any individual chemist who thinks he perceives an opening should not straightway change the character of his business in any way he thinks fit.

#### Advice to the Pharmaceutical Society.

SIR,—I should like, through your medium, to suggest that the Pharmaceutical Society should now enforce the new law with regard to unqualified assistants where they have to supply or dispense poisons; and, seeing that they have the

power, I cannot see why it should not be strictly enforced, or what is the use of the law? and I think chemists should be compelled to have qualified men to serve in their shops, and feel they are in a profession.

Again, I suggest that the Society should reduce the subscriptions from 21s. to 10s. 6d., and all qualified assistants and chemists join the Society, and work amicably together.

I may also suggest that the Society should allow all qualified assistants to hold the degree L.P.S., and Major-men M.P.S., the same as the Irish Pharmaceutical Society.

Sept. 30.

CHEMIST. (146/29.)

H. R. L. (133/15), in reference to "the yearnings of some chemists for high falutin' designations," directs our attention to handbills, which he encloses, issued by a chemist of South Wales, who describes himself as "Wholesale Chemist, Introducer and Inventor of New Drugs."

#### MISCELLANEOUS INQUIRIES.

*Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.*

*A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.*

*Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.*

145/64. *Vet.*—Warts on Horses.—See February 8, page 205.

145/74. *Inquirer.*—See page 267 of the DIARY.

146/22. *A. E. W.*—Use the receipt for Shaving-soap given on page 482 of April 5 issue, and colour with caramel

146/60. *Capsicum.*—Chillie Paste.—December 22, 1888, page 868.

150/29. *R. H. K.*—The finings for which a formula is given on page 32 (July 5) will suit your purpose.

151/52. *R. A. M.*—For Weed-killer, see May 24, page 723.

150/10. *H. C. B.*—Gould's Prescription is fully translated in our issue of January 28, 1888, page 139.

150/13. *Winter.*—There is a good recipe for Cod-liver Oil Emulsion in the DIARY.

138/50. *John Ough.*—(a) We have already made unsuccessful inquiry on your behalf. (b) To Albuminise Paper.—The coating solution is made as follows:—

Fresh egg-albumen	..	..	6 oz.
Ammonium chlorido	..	..	60 grains
Rectified spirit	..	..	96 minims
Distilled water	..	..	14 drachms

Dissolve the chloride in the spirit and water, and add to the albumen. Whisk the mixture for a quarter of an hour, allow to settle, and strain through absorbent cotton. Place the prepared albumen in a large flat dish; draw the surface of the paper over it, dry, and calendar.

139/15. *A. P.*—The London Pharmacopœia did not contain a chloric ether.



140/39. *Pharmacist* (Bradford).—Viscosity of Oils.—The factor employed in determining this is the time taken for 100 c.c. of the oil to run through a circular aperture 1 mm. in diameter, water being taken as unity. The determinations are generally made at 10° C., 30° C., or 50° C.

145/13. *E. S. V.*—We should say, judging from the results which you have had, that the Olive Oil is not adulterated with cotton-seed oil; but the results with the nitric-acid test indicate that a seed oil of some kind is present, for the pale-coloured and solid mass which remains after treating pure olive oil with nitric acid is very different from the mass which you have obtained, especially in the second case. As to the points which you put—(1) The action between the oil and the acid is similar to what takes place in making citrin ointment. There is no mistaking what "fairly set up" means, once you see it—the froth being so abundant that it is undesirable to continue heating. (2) The very finest olive oil costs 140l. per ton—about 11s. per gallon—as imported. This consists of the droppings from the fruit. Oil of the first pressing is worth about 8s. 6d. per gallon in first hands. You may judge from that what an oil at 6s. 3d. per gallon to retailers may be. (3) A public analyst might not condemn your sample, but he would scarcely be justified in calling it "pure olive oil." (4) This has already been explained.

147/51. *Fides*.—Obviously so many correspondents from different parts of the country cannot be wrong, and we should say that your reduced iron is at fault. You should examine it, as well as a few more samples, chemically, and observe the differences in making the pills. Let us have a note of the result.

150/31. *Pulv. pro Dentibus*.—Powdered white soap (B.P.) is best for Tooth-powder. The odour is entirely covered by rubbing the soap with its own weight of orris powder, say, 1 drachm of each to  $\frac{1}{2}$  oz. of precipitated chalk, and 2 drachms of carbonate of magnesia. One drop of otto of rose completes the powder.

150/61. *Gelastian M.*—(1) The matter is fully treated in "The Art of Dispensing," and (2) in the Educational number.

150/19. *Piscator*.—You will find plenty of statistics in regard to vaccination in the Report of the Local Government Board just published. You should also read the evidence before the commission on the subject.

151/31. *Precipitate*.—Read the Educational number.

150/38. *T. M.*—The solution used in Leclanché batteries is a saturated solution of ammon. mur.

140/35. *W. H. S.*—You will get a great deal of information in Spon's "Encyclopædia" regarding the chemicals used in the various industries which you mention; also in the same publisher's "Workshop Receipts." Churchill publishes manuals on hewing and dyeing, and Croshy Lockwood has a series of books in which leather manufacture is included; but you may find an encyclopædia, on the whole, the handiest for your purpose. A list of the chemicals used in the industries would not be of sufficient general interest for publication in this journal.

141/71. *Medicus*.—(1) In many hospital dispensaries time can be obtained for attending lectures; but boards of management in all the principal hospitals discourage this. Salaries in hospital dispensaries do not differ materially from those in shops. (2) Read the information given in our Educational number. Surely you can judge for yourself which is the cheapest school, or make further inquiries direct,

139/55. *Hibernia*.—Raspberry Essence is made from the fruit by maceration in spirit for two or three weeks, filtering, and maturing for about a year, then 5 per cent. or so of artificial essence may be added. The artificial essence may be made according to the following formula:—Aldehyde, 1 part; acetic ether, 5 parts; amyl-butyric ether, 1 part; butyric ether, 1 part; benzoic ether, 1 part; formic ether, 1 part; methyl-salicylic ether, 1 part; nitrous ether, 1 part; sebacic ether, 1 part; glycerine, 4 parts; saturated alcoholic solution of tartaric acid, 5 parts; and saturated solution of succinic acid, 1 part; tincture of orris, 15 parts; fuchsin and caramel, of each a sufficiency to colour.

140/39. *Heather Bell*.—There are holders for the magnesium ribbon, but no special method of burning it. In flash-light photography powdered magnesium is used by puffing it over a spirit flame.

140/65. *H. Parker*.—Bicarbonate of soda is used as Butter Powder.

140/69. *Vinum*.—We do not know of any magic "drops" of the kind.

140/27. *Piercer*.—We cannot assist you in the matter.

140/32. *Polish*.—French Polishing is an art in which the element of time enters largely in the form of prolonged rubbing. Your polish might be the better for the addition of 6 oz. of sandarac to the gallon; but there is nothing which will give a finished polish quickly except varnish.

140/28. *C. T. B.*—Coca Wine.—1 oz. of coca leaves to a pint of Malaga wine.

141/36. *R. Johnson*.—Compounders in Prisons are supposed to have passed an entrance examination (fee 2s. 6d.) in reading, writing, and arithmetic; but, as stated in our Educational number, the Minor or Major qualification is essential, and power is given to the Civil Service Commissioners to dispense with all other examinations.

190/12. *Bedford* asks if the following is a safe Compound Quinine and Iron Tonic:—

Syr. Eastoni .. .. .	3j.
Ammon. bromid. .. .. .	3ij.
Syrupi .. .. .	3j.
Aq. cinnamon. ad .. .. .	3viiij.

M.

A tablespoonful thrice a day.

The mixture is perfectly safe; but why give Easton's syrup and a bromide together? They are physiologically antagonistic. You should omit the ammonium bromide, and add caramel to colour the mixture. Cinnamon-water should never be given along with quinine, as the latter creates a repugnance to the former, which many people never succeed in conquering, the result being that they are deprived of certain pleasures of the table.

141/62. *Pharmacist*.—(1) The Dutch Pharmacopœia test for detecting the presence of Methylated Spirit in Ether is as follows:—When 2 c.c. of the ether is shaken with 6 drops of mercuric chloride solution (1 in 20) and 6 c.c. of hartya water, a yellow precipitate is produced which does not redissolve. The filtrate from this mixture should not be rendered opalescent nor darkened by the addition of ammonium sulphide. (2) We take it that the question as to the use of methylated ether for tinctures was asked merely to make assurance doubly sure. Ether and chloroform made from methylated spirit are specially exempted from the operations of the clause in the Spirits Act regarding the use of methylated spirit as a beverage or internally as a medicine.



141/32. *Ferrum*.—"Liq. ferri phosph. magneticum" is a mistake for liq. ferri et manganis phosph. You will find the formula in our issue of August 31, 1889, p. 317.

141/33. *A. Plodder*.—Surely we were explicit enough in the Educational number, where it is plainly stated that it is "the proportion of the active ingredient" in preparations that is required. We publish accounts of the Minor examination from time to time. If you get all these and read them you would be considerably enlightened.

142/15. *Ipecac*.—Hair-restorer.—May 17, p. 680, and every back volume.

143/2. *A. C. E.*—We should say that the alcohol in the *A. C. E. Anæsthetic Mixture* would unquestionably influence the retardation of the evaporation of the more volatile constituents, as the mixture is partly, at least, of the nature of a solution, *i.e.*, ether and chloroform are dissolved by the alcohol. To separate the molecules a greater force is, therefore, required, and that is practically the equivalent of longer exposure.

147/54. *Specialist*.—Consult the hospital list given in our DIARY.

148/51. *J. B.*—We are unable to give you the information which you require regarding the dyeing of feathers a jet-black colour. This is an art which is kept secret to a large extent.

147/57. *Rdale*.—You can get all the drugs of *Jos. Holmes's Prescription* from a wholesale herbalist. They are *Turnera aphrodisiaca* (damiana leaves), *Verba santa buena* (a Californian plant resembling hyssop), *Solanum Jerubeba* (a Brazilian plant), manzanita leaves (a Californian plant), *Arctostaphylos glauca*, of the same natural order as *uva ursi*).

147/1. *W. F. W.*—You cannot do better in the meantime than use the formulæ given in this year's DIARY, or Beasley's receipt-book. Our experience is that most veterinary receipt-books are very much alike.

148/32. *Forecups*.—(1) You may as well omit the isinglass, which will not dissolve in carbon bisulphide. The cement otherwise is the regular thing. The united joints should be kept under pressure for some time. (2) Filter. The feculence is probably simply a little pectinous matter. (3) Before the tooth-stopping amalgam hardens most of the mercury has to be squeezed out of it. We judge from your description that you have used too much mercury; if so, squeeze it out through chamois leather until the amalgam is quite hard, and when required soften in hot water. (4) "British Journal of Dental Science," 289 Regent Street, W.

144/45.—*H. S. T.*—We are unable to give you the information.

145/17. *Yankee*.—The "Yankee Ink" for shoemakers is a strong logwood ink containing a considerable proportion of sulphate of iron. Try the following method for making it:—Boil 2 lbs. of logwood, 3 ozs. of gum arabic, and a few drops of vitriol, in 2 gallons of water for an hour, renewing the water occasionally so as not to allow the liquid to go below a gallon; while still boiling add 5 ozs. of common sulphate of iron, and  $\frac{1}{2}$  oz. of bichromate of potash—the latter dissolved in a sufficiency of boiling water. Strain, and when cold add 30 drops of carbolic acid and  $\frac{1}{2}$  oz. of methylated spirit. Make up to one gallon with water, and set aside for ten days.

192/23. *Alpha*. The U.S. Pharmacopœia is published at 21s., and you can obtain it from any medical bookseller; but we advise you to get rather Remington's "Pharmacy," which is the same price, contains the whole of the Pharmacopœia, and much else besides.

146/62. *J. W. Sugden*.—(1) Oil of Swallows was originally made by pounding and boiling sixteen live young Swallows with a handful each of plantain and bay leaves, chamomile, rue, dill, sage, hyssop, rosemary, hypericon, and costmary, in 4 lbs. of oil and 1 lb. of Spanish wine, and straining. You cannot make this nowadays, even although you should catch the swallows. In place of it you may give a mixture of linsced oil 3 parts, turpentine 1 part, coloured with green oil and flavoured with chamomile and rosemary oils. (2) Perhaps Armenian Bole is wanted for "Rubria."

146/47. *Alba*.—The best plan you can adopt to dry the *Bad Menthol* is to press it in folds of filtering-paper, which will absorb most of the oil; then, to get rid of the colour, dissolve the menthol in the minimum quantity of warm rectified spirit, filter the solution, and set aside to crystallise. The paper which we recently published regarding the manufacture of menthol cones ought surely to satisfy you.

149/17. *Minim*.—We expect our correspondents are asking queries in good faith. We do not care to spend our time in mere guessing competitions. The prescription was readable as *Tr. Auri P.* It is quite possible that *Tr. Anem. P.* was intended, as the homœopathic house presumed. That would be what is more commonly called *pulsatilla*. We know of no "Tr. Anemp."

147/23. *W. T. Gorfelt*.—Lozenge Making.—Make the lozenge ingredients into a paste with tragacanth mucilage in a similar way to the official lozenges. This paste should be rolled out with a rolling-pin (using equal parts of powdered starch and sugar as a dusting powder), and when the desired thickness is obtained cut into lozenges with a stamp. The stamp is made with a steel edge mounted on a cone of tin of the requisite shape (round, oval, or octagon). You will require to get this made, and you will be none the worse of a brass roller, and flat brass rods to use as gauges for the thickness of the lozenges.

149/9. *Lindum*.—To prevent Pomades becoming Rancid you should benzoate them with benzoic acid, 3 to 5 grains to the ounce. The addition of a little chloroform to the perfume is also beneficial.

#### Information Supplied.

139/41. *Diatoms*.—Place a portion of the diatomaceous earth in a large test-tube, adding about five or six times its bulk of pure sulphuric acid. Heat this gently over a spirit-lamp till the vegetable matter is carbonised and a white foam appears; then add very carefully a few crystals of potassium nitrate; this will bleach the material; then pour slowly into a conical vessel full of water. The cleaned material will then settle at the bottom; decant the supernatant fluid, and repeat the process till the sulphate of potassium is washed out, and, finally, preserve the remainder with a little spirit. A drop of this fluid residuum may be placed on a glass slip, the water evaporated, and then mounted in the ordinary way.

A. W. GRIFFIN.

#### Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

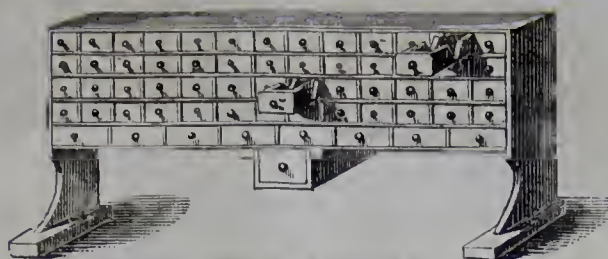
148/17. Where can Kieselguhr be obtained in small or large quantity?

143/58. Particulars of a method for platinising small steel articles by heating them and immersing in a solution of perchloride of platinum with honey.



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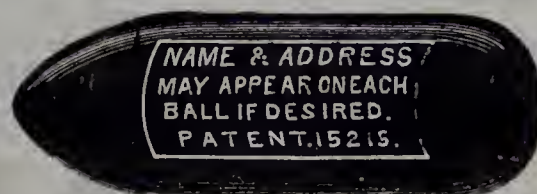
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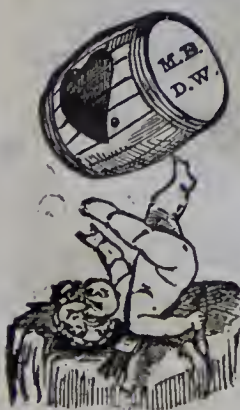
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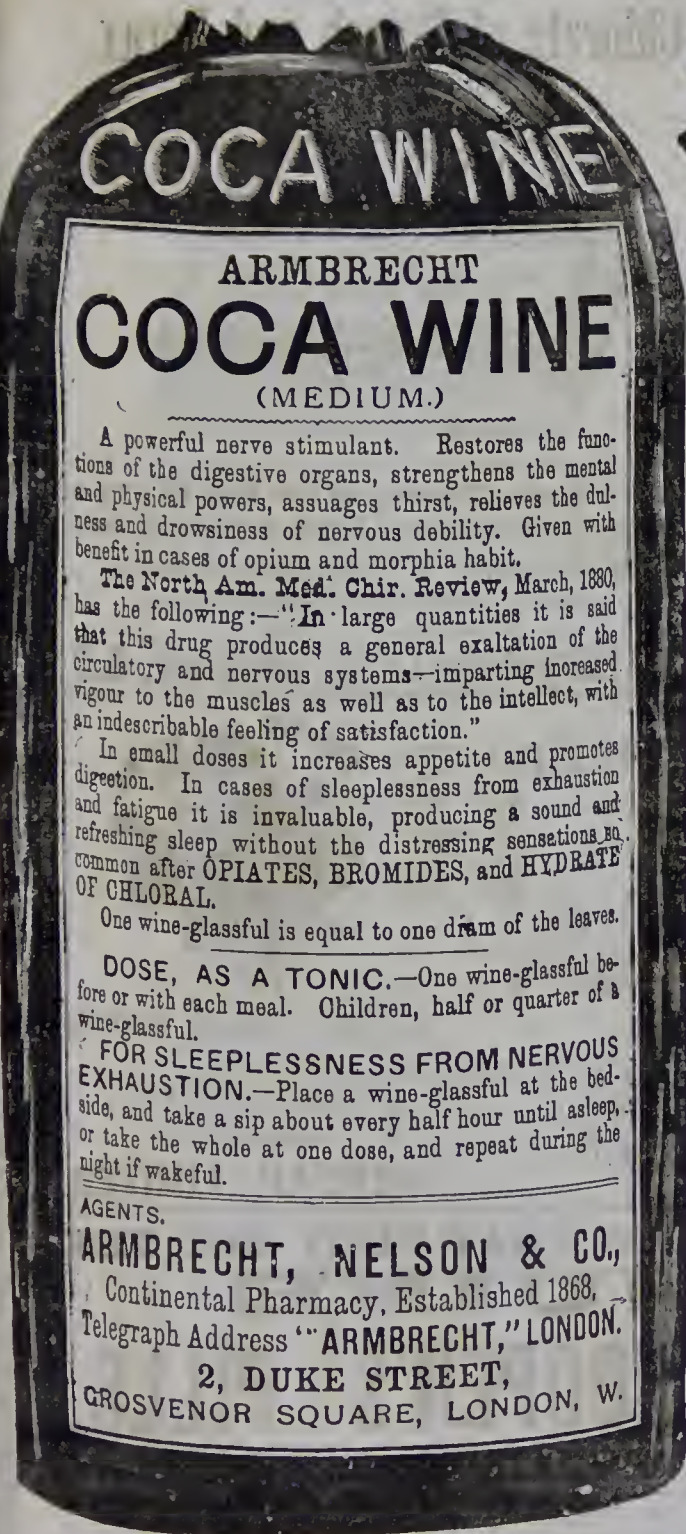
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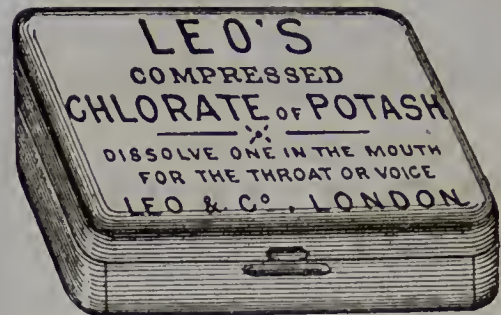
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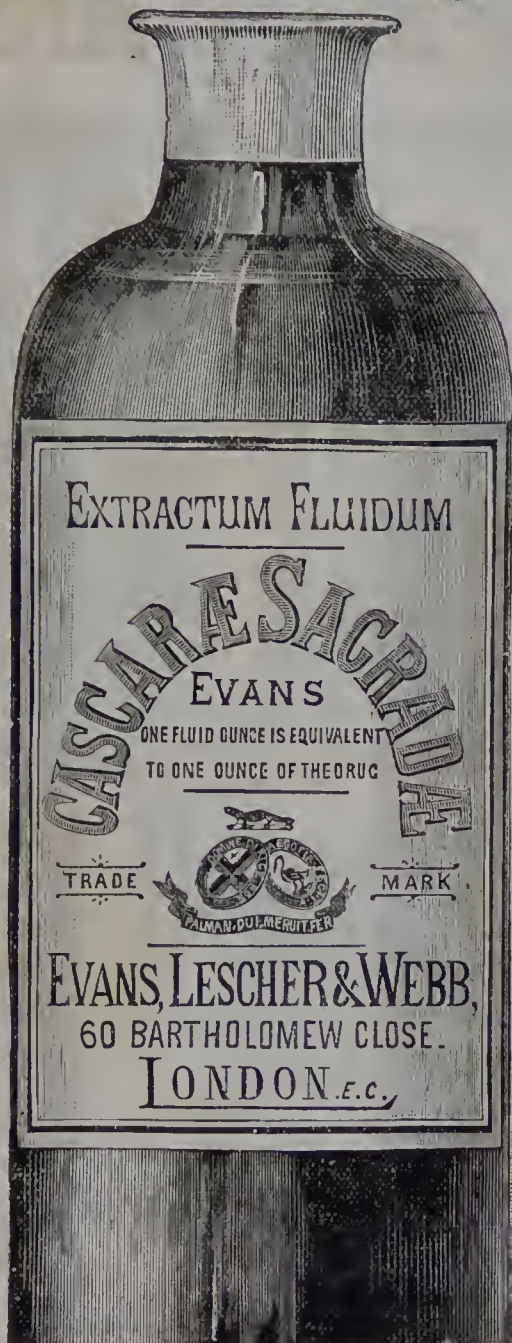
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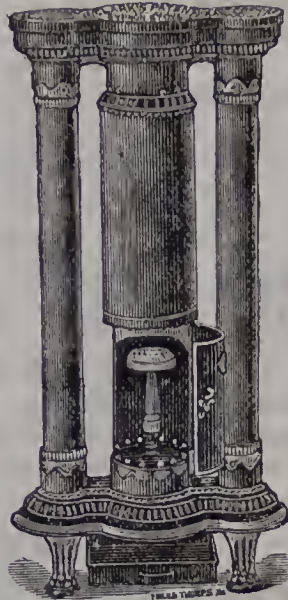
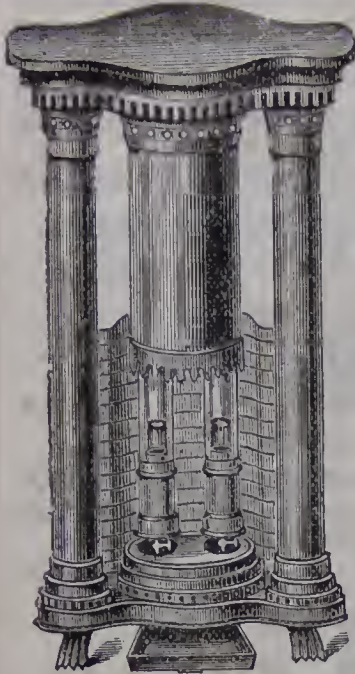
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AGENTS WANTED FOR THE SALE OF CLARK'S PATENT

## "SYPHON" (REGISTERED TITLE) HYGIENIC CONDENSING GAS HEATING-STOVES.

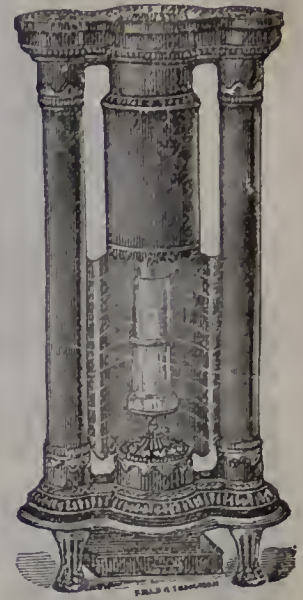
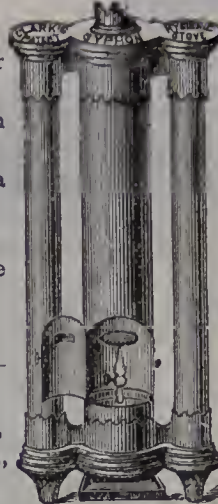
NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.



For Use In Hospitals, Sick Chambers, Bedrooms, Halls, Conservatories, Churches, Schools, &c.

Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.



For Terms, Particulars, and Prices, apply to

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Telegraphic Address—"SYPHON STOVES LONDON." Wholesale Agents—Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.C.

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PRICE 1/6 EACH (Nickel Plated).

REGISTERED  
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For the use of Chemists and all others who require a Small Smokeless Flame of Intense Power.

EXCLUDE AIR.—An ordinary ILLUMINATING FLAME is obtained.

ADMIT AIR.—For Sealing Wax purposes this BUNSEN FLAME is most useful; the impression produced from a seal is a far better colour than it is possible to produce with an ordinary gas-jet.

ADMIT FULL QUANTITY OF AIR.—For Soldering purposes this powerful BLOWPIPE FLAME is invaluable to Jewellers, Dentists, and others.

Small Nickel-Plated Taps to fit the above Jets, 1/- each.

Registered Gas Bracket, as shown on page 133 in the summer number, 7/6 each complete, Nickel-plated. Write for descriptive circular.

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On receipt of Postal Order or Stamps.

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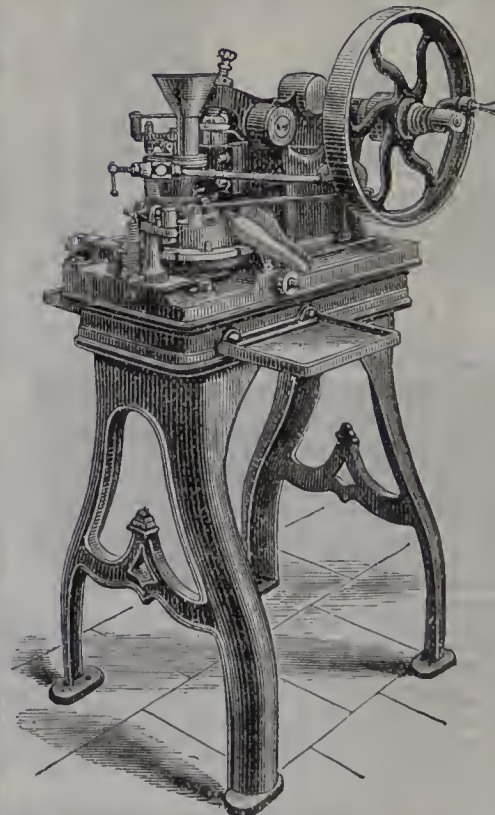
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	20 oz.	30 oz.	40 oz.
ACID or ETHER ROUNDS, STOPPERED and GLASS CAPPED.	20/-	24/-	30/-
OIL BOTTLES, STOPPERED FUNNEL STOPPERS and GLASS CAPPED.	20/-	24/-	30/-
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## HAND-MADE WHITE GLASS SHOP ROUNDS

SIZES	2dr.	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	3	4	6	8	10	12	16	20	24	30	32	40	60	80 oz.
UNSTOPPERED, NARROW or WIDE.	6d.	6d.	8d.	8d.	10d.	1/	$1\frac{1}{2}$	$1\frac{1}{8}$	$1\frac{1}{10}$	2/	$2\frac{1}{3}$	$2\frac{1}{6}$	$2\frac{1}{9}$	3/	$3\frac{1}{6}$	$3\frac{1}{8}$	$4\frac{1}{6}$	$5\frac{1}{6}$	$7\frac{1}{6}$
NARROW, GROUND GLASS STOPPERED.	$1\frac{1}{2}$	$1\frac{1}{3}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{6}$	$1\frac{1}{8}$	2/	$2\frac{1}{4}$	3/	$3\frac{1}{3}$	$3\frac{1}{6}$	4/	$4\frac{1}{6}$	$4\frac{1}{9}$	5/	$5\frac{1}{6}$	6/	7/	9/
WIDE, GROUND GLASS STOPPERED.	$1\frac{1}{4}$	$1\frac{1}{6}$	$1\frac{1}{7}$	$1\frac{1}{9}$	$1\frac{1}{9}$	2/	$2\frac{1}{4}$	$2\frac{1}{9}$	$3\frac{1}{6}$	$3\frac{1}{9}$	$4\frac{1}{4}$	$4\frac{1}{6}$	5/	$5\frac{1}{3}$	$5\frac{1}{6}$	$5\frac{1}{6}$	$6\frac{1}{6}$	8/	10/

Prices per dozen, Net Cash, Delivered Free, London.

GOLD LABELLING ON ABOVE 3/- PER DOZEN. ENGRAVED LABELS ON ABOVE 4/6 PER DOZEN.

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We wish to draw the attention of Chemists to the excellence of the spirit we supply for pharmaceutical purposes. We have devoted great care and attention to this branch and have made it a leading line.

That our efforts in this direction have been appreciated is proved by the number of *unsolicited* testimonials we have received from nearly every town in the country, of which the following is a specimen:—

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Please send 5 gall. 56 o.p. as before. I have pleasure in saying I have always found your spirit answer all tests, which is more than I can say of all I have had from different places, and also to be practically free from odour.

Messrs. Stephen Smith & Co.

The Pharmacy, Morecambe.

Yours faithfully, JOSH. N. CUTTS, B.Sc., F.C.S.

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Double Distilled, 56 o.p. ... .. 19s. 7d.

CASH WITH ORDER. REDUCTIONS FOR QUANTITIES.

**SPECIALITY FOR PERFUMERY.**

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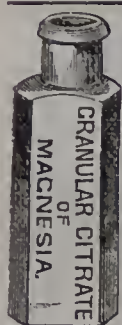
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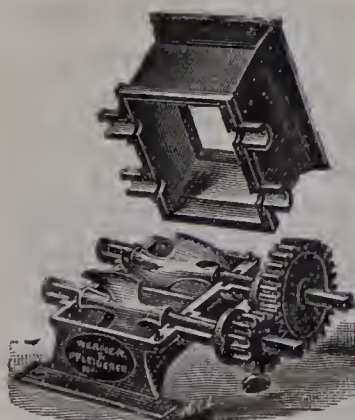
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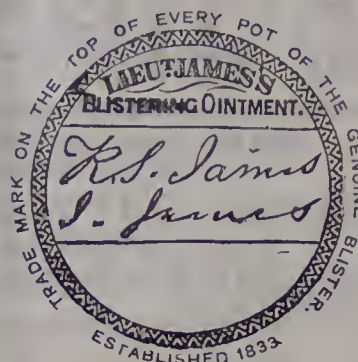
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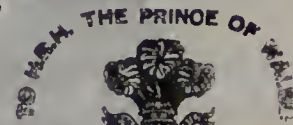
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For assuaging pain and inflammation in all wounds, saddle galls, strains,  
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Pamphlets on Canine Diseases for gratuitous distribution. Show Cards and Handbills Supplied.

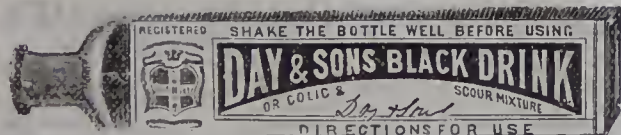
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EXTERNAL & INTERNAL IRRITATION  
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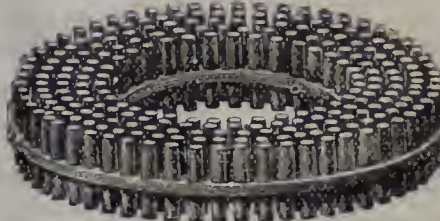
Retails for 3s. 6d. each.  
Price 25s. per dozen.

Used with a little soap in the daily ablutions, the gentle friction of this brush makes the skin beautifully soft and smooth, effectually eradicating all blemishes, blotches, wrinkles, coarse lines, &c., and entirely superseding the poisonous cosmetics and face-washes now in use. It is simply invaluable for bathing the delicate skin of infants and children.



## BAILEY'S RUBBER TEETHING RING

(PATENTED)



Is perfectly tasteless, and so constructed that the flattened teeth serve to expand the skin of the gums, softening the latter, and thus aiding the coming tooth without irritation. It is made of pure Para Rubber, and entirely supersedes the old-fashioned and injurious article sold for this purpose, and is highly recommended by leading Physicians and Dentists.

Retails for 5d. each.  
Price 3s. 6d. per dozen.

We are also the Makers of BAILEY'S BATH and FLESH BRUSHES, price 42s. per dozen; RUBBER TOILET BRUSHES, prices 8s. and 17s. per dozen; and RUBBER TOOTH BRUSHES, price 6s. and 6s. 6d. per doz.

Of all Wholesale Houses, or direct from the Manufacturers,

**DAVID MOSELEY & SONS,**

14 Aldermanbury Avenue, LONDON, E.C.

Ardwick, MANCHESTER; and 57 Miller St., GLASGOW.

Trade Mark.



Registered.

THE

ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,  
12 Pall Mall East, LONDON, S.W.

SOLE AGENTS FOR DR. WARLDMONT'S CALF VACCINE.

Tubes, 1s. each; Half Tubes, 1s. each. Pomade in vials, 5s.  
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 6d. each; Tubes one-third full and Lancet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank) with orders, payable to  
EDWARD DARKE Secretary.

Office hours, 10 to 4. Saturdays 10 to 2.

## OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/1, 1/8, & 3/6; Wholesale, 7/12, & 22/6 per doz.  
This much-admired Perfume (first introduced by the late Joseph Okell) may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Sole Consignee—THOMAS WEST, 59 and 61 Chester Road, Stretford, Lancashire.

Special Agents—B. G. LENNON & CO., London, and Port Elizabeth Cape Town, and East London, South Africa.

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20 HIGHEST AWARDS.

# Pears' Soap

Soap Makers

by Appointment to



H.R.H.

The Prince of Wales.

RETAIL PRICES.

6d.

SIZE, unscented

Per Dozen.

4s.

1s.

,, all shapes, Washing or Shaving

8s.

1s.6d.

,, Ditto ditto

12s.

2s.6d.

,, (The Washing Tablets are perfumed with Otto of Roses)

20s.

TRANSPARENT  
GLYCERINE

2s.

per Box of 3 Tablets

16s.

Per dozen  
Boxes.

WHOLESALE PRICES.

## DISCOUNT of 20 per Cent.

### On all ORDERS of NOT LESS than £5.

(GROSS TRADE-PRICE VALUE.)

### If accompanied by Remittance,

[Lesser Quantities 15 per Cent. Discount only.]

## IMPORTANT STATEMENT.

No Dealer in the Kingdom, "Wholesale or Retail," for any quantity whatever obtains more than the above 20 PER CENT. Discount.

(Signed), *A & F Pears*

71-75, NEW OXFORD STREET, LONDON, W.C.



# COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.  
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

## ECZEMA, RINGWORM, SCABIES, FAVUS

AND OTHER SKIN DISEASES.

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Price in 3-Tablet Boxes, per doz. 12/-; Selling Price, 1/6; in 1/4-gross Boxes, 10/6 per box.

**GOLD MEDAL, PARIS EXHIBITION, 1889.**

Can be obtained through MESSRS. S. MAW, SON &amp; THOMPSON, LONDON, or of

**EDWARD COOK & CO.,** HOUSEHOLD and TOILET **SOAP MAKERS. LONDON, E.**

## PERFUME SPRINKLERS,

ALSO FOR

HAIR WASHES, CREAMS,  
OILS, INKS,

&amp;c.

[1]



MANUFACTURERS:

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Victoria Works, Victoria Gardens, Notting Hill Gate, LONDON, W.

Established 1820

Telegraphic Address: "COLLAPSIBLE LONDON."

**Matchless for the Teeth, Gums, and Breath.****Dr. W. ZIEMER'S**  
most efficaciousSold by all  
Wholesale Houses.**"THE ALEXANDRA"****DENTIFRICE.**

It Preserves, Beautifies, and renders the Teeth perfectly White without injuring the enamel. It Strengthens the Gums. It is most Agreeable as a Mouth-wash, and Sweetens the Breath. It is Invaluable to Smokers. Prices: 1/3 size, 9/; 2/ size, 15/; 3/8 size, 24/ per dozen.

Sole Proprietors: **B. W. ZIEMER & CO.,** 143 Cannon Street, London, E.C.

REGISTERED

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**THE SCIENTIFIC  
DENTIFRICE.**OF ALL WHOLESALE  
HOUSES.

This Preparation has been especially designed by an eminent London Dental Surgeon, after a long series of careful experiments, to Prevent Decay of the Teeth in addition to beautifying them.

**SALVINE** is the only Dentifrice that is an Ant-Acid and Anti-Parasitic.

Put up in a novel and attractive manner. Price 1/1, 1/6, and 2/6.

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A handsome, valuable Showcard of an exceedingly tasteful and high-class design, now ready. Transparencies and other attractive Advertising matter.

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43 Highest Awards over all Competitors throughout the World.

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Original Manufacturers of

**PHARMACOPŒIAL  
AND SURGICAL PLASTERS**

IN RUBBER COMBINATION.

Antiseptic Dressings and Absorbents, Bandages  
Oiled Silk and Muslin, and Surgical Dressings  
of every description.

Supplies may be obtained through any Wholesale Druggists and Dealers in Surgical Appliances, or from the Proprietors,

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[2]

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**DESIRING** to stock **ANTI-STIFF**—which is now a very saleable line—may do so on exceedingly easy terms.A small order of 1 dozen 6d. and 1/2 dozen 1s. tins may be had for 8s. 6d. (less 5 per cent discount for cash at the month, or 7 1/2 per cent. for cash with order). Those who stock **ANTI-STIFF** have the fact advertised in the athletic papers, and receive one of the most striking and handsome Showcards yet seen. All carriage paid by me.Should there be any difficulty in the sale of **ANTI-STIFF** the amount paid will always be refunded without any deduction.If the above-mentioned quantity of **ANTI-STIFF** be obtained through a Wholesale House I will advertise address and send Showcard the same as if obtained direct from me; and should they not sell easily they may be returned to me, and I will refund the full amount paid to the Wholesale House for them.Footballers will be asking for **ANTI-STIFF**  
during the coming Winter.**JOSEPH WILSON, Chemist, CHISLEHURST.**



# CHEST PROTECTORS

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Before placing their season's orders for Chest Protectors and Respirators, Chemists are respectfully invited to write to us for quotations.

Manufacturing these goods ourselves, we are able to quote very favourably to buyers, and guarantee that the best quality materials are used. The Chest Protectors can be had of Red or White Felt and Natural Wool.

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**THOMPSON, WALTERS, HOLE & CO., LTD.**  
CURTAIN ROAD, LONDON, E.C.



**EAU DE COLOGNE**

OF THE MOST ANCIENT DISTILLER,

**JOHANN MARIA FARINA,****Opposite the Julichs Place, COLOGNE,**

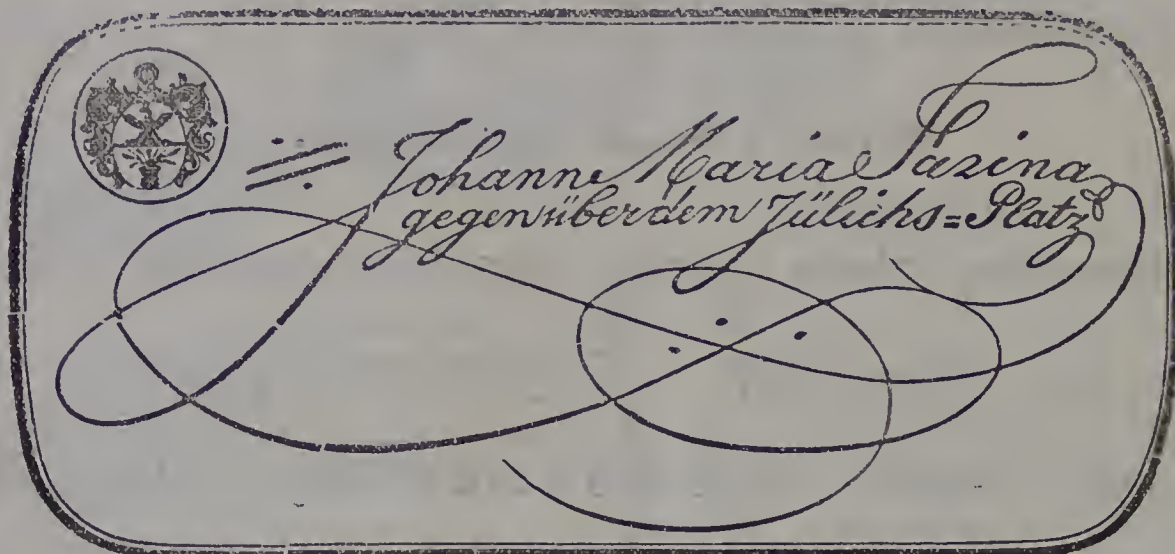
ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

By appointment, Sole Purveyor to Her Most Gracious  
Majesty Victoria, Queen of Great Britain & Ireland;  
Their Royal Highnesses the Prince and Princess of  
Wales; Albert II., King of Saxony;Their Majesties, William II., German Emperor and  
King of Prussia; Alexander II., Emperor of Russia;  
Francis Joseph, Emperor of Austria; Lewis, King  
of Portugal.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 13s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

**MESSRS. J. & R. McCracken,**  
**No. 38 Queen Street, Cannon Street, London, E.C.**

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	—	—	—	—	—	—	12 bottles	} to one dozen.
" 2. Short White Bottles	—	—	—	—	—	—	12 "	
" 3. Double ditto	—	—	—	—	—	—	6 "	
" 4. Wickered Bottles (small)	—	—	—	—	—	—	8 "	
" 5. ditto (medium)	—	—	—	—	—	—	4 "	
" 6. ditto (large)	—	—	—	—	—	—	2 "	

**JOHANN MARIA FARINA**

COLOGNE: January, 1890.

**OPPOSITE THE JULICH'S PLACE.**



# JUSTICE!! JUSTICE!! JUSTICE!!

**THE MENTHOL SEASON HAS ARRIVED,**  
AND WITH IT

## SHIRLEY'S NEW CHINA FIGURE OF 'JUSTICE!'

She is a charming Biscuit Figure, pure white, intersected with gold, and is holding a balance in her right hand, with a sword of gold hanging on a girdle round her waist. She stands on a black pedestal, on which is also mounted two Menthol Cones, and at foot of the pedestal is an inscription.

**WHAT DOES SHE SAY?** She tells the public that the "A1" Brand Menthol Cones far excel all others for Neuralgia, Headache, Rheumatism, Sciatica, &c. Therefore, those who have this figure will find their trade in Cones rapidly increase, and will draw customers for these goods to their pharmacy, and this of course leads to their buying other articles as well, thus **Chemists who are alive to their own interests** will take advantage of securing this figure,

**WHICH IS GIVEN AWAY WITH A 40s. ORDER.**

**BE FIRST IN THE FIELD WITH THIS CHARMING NOVELTY.**

SPECIAL PARCELS have been arranged as under:—

**PARCEL A.**—All in PLAIN box-wood cases: 5½ doz. 6*d.*; 3 doz. 1*s.*; 2 doz. 4*d.*; realising when sold, 77*s.* = 37*s.* on an outlay of 40*s.* = 92 per cent. profit.

**PARCEL C.**—PLAIN Boxwood and other styles, assorted: 4 doz. 6*d.*; 2 doz. 4*d.*; 2 doz. 4½*d.*; and 3 doz. 1*s.*; realising when sold, 77*s.* = 37*s.* on an outlay of 40*s.* = 92 per cent. profit.

**PARCEL E.**—Printed Boxwood,  
only to sell at 4*d.* and 6*d.* each :  
4 doz. 4*d.* and 9 doz. 6*d.* ; realising  
70*s.* = 30*s.* on an outlay of 40*s.* =  
75 per cent. profit.

**PARCEL G.**—Printed Boxwoods and others, to retail from 1s. each: 5 doz. 1s., 1 doz. 1s. 6d.; realising 78s.=38s. on an outlay of 40s.=95 per cent. profit.

**PARCEL I.**—Menthol Cones and other preparations of Menthol, embracing 3½ doz. 6d., 2 doz. 4½d., 1 doz. 1s., and 1 doz. 4d. Cones, 1 doz. Menthol Cocaine Toothache Tubes, 1 doz. 7½d. Menthol Ointment, 1 doz. 3d. Menthol Snuff, and 1 doz. packets of Menthol Leaves, realising when sold, 68s. 6d.=28s. on an outlay of 40s.=70 per cent. profit.



**PARCEL B.**—All in PRINTED Box-wood Cases: 5 doz. 6*d.*: 3 doz. 1*s.*; 2 doz. 4*d.*; realising when sold 74*s.* = 34*s.* on an outlay of 40*s.* = 85 per cent. profit.

**PARCEL D.**—PRINTED Boxwood  
and other patterns, assorted:  $4\frac{1}{2}$   
doz. 6*d.*: 3 doz. 1*s.*; 1 doz. 4*d.*;  
1 doz.  $3\frac{3}{4}$ *d.*; 1 doz.  $4\frac{1}{4}$ *d.*; realising  
when sold, 7*s.* = 3*s.* on an outlay  
of 40*s.* = 87 per cent. profit.

**PARCEL F.**—Plain Boxwoods and other patterns, to retail from 2*d* to 6*d*. each: 6 doz. 2*d*.; 4 doz. 3*d*.; 1 doz. 3½*d*.; 3 doz. 4*d*.; 1 doz 4½*d*.; 4 doz. 6*d*.; realising 68*s*. = 28*s*. on an outlay of 40*s*. = 70 per cent. profit.

**PARCEL H.**—SPECIAL 50s. PARCEL, made up of 1d. or 2d. sizes only, or an assortment of both.

Some may think 40s. worth of Cones too many, but this is a great mistake—the Figure alone will sell them. The greater the show, the more you will sell, and the larger the profit.

**ARTHUR W. SHIRLEY, 55 FARRINGTON ROAD, LONDON, E.C.**



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OFFICES FOR BRITISH AND FOREIGN  
**PATENTS AND TRADE MARKS,**  
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(NEXT TO SOMERSET HOUSE).  
Guide to New Patent Law and Registration gratis.

**RED<sup>K</sup> FINK & CO.,**  
10 & 11 MINCING LANE, LONDON, E.C.  
SPECIALITIES: Glycerine—Gum Arabic—Gum  
Fragacanth—Pure Beeswax—Honey—Vanilloes.

**Critchley's  
Starch Gloss**  
Prepared only by  
**T. CRITCHLEY,  
BLACKBURN, &  
2 BEECH STREET,  
LONDON, E.C.**  
Makes Starched Linen like new. Does not stick to spider-like materials. Once tried always wanted. Used in the Royal Laundries. Sold everywhere, in Packets, 1d., 3d., 6d., and 1s. each. Write for quotations.

**GREENSILL'S  
ORIGINAL  
MONA BOUQUET.**  
Wholesale and Shipping Terms sent on application to the Sole Manufacturers—  
**GREENSILL & SON, DOUGLAS.**  
ESTABLISHED 1852.

**Fletchers' Hydrobromates**  
Supplied in Original Bottles ready for Patient's use (stamped), to retail at 4/6 each; also in 1-lb. Bottles for Dispensing, by the Sole Manufacturers:—  
**Fletcher, Fletcher & Stevenson,**  
21 Mincing Lane, London, E.C.

**JACKSON'S  
ELECTRIC CORN & WART TUBES**  
These tubes, being hermetically sealed, prevent any loss by evaporation or drying up of contents. Each tube is enclosed in a cardboard case, and each doz. cases mounted in a handsome box for displaying on the counter.  
Price 3s. 6d. dozen. Usual discounts.  
Manufactured by **HAROLD JACKSON, STRANGWAYS, MANCHESTER.**

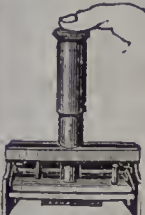
**E. OFTINGER,**  
26 Rue de Navarin, PARIS,  
IMPORTER OF  
**MUSK, CIVET, AMBERGRIS,  
OTTO OF ROSE, ESSENTIAL OILS,**  
And all Products for Manufacturers of Perfumery.

**NEOCYCLOSTYLE**  
DUPLICATING APPARATUS  
Is invaluable to all Chemists for Printing Price Lists, Circulars, &c.  
Price from 25s. to 42s. complete.  
Apply for Descriptive List and Specimens of Work to the  
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**SANFORD & SON**  
MANUFACTURERS, SANDY, BEDS  
Sole Proprietors of Sanford's Celebrated RAT POISON, without doubt the best ever introduced. Price, 6d., 1s., 2s., and 3s. per box. Also MICE POISON; cannot be excelled. In packets, 3d., 6d., and 1s. each. Liberal terms to Chemists.  
Wholesale of **BARCLAY & SON, SANGER & SON, NEWBURY & SON, EDWARDS & SON,** and others, London.


 **TO COUNTRY CHEMISTS.**  
Send for our NEW SAMPLE PARCEL of  
**SALEABLE NOVELTIES** for the **MILLION**  
HALF PROFIT. ENORMOUS DEMAND.  
Free by Parcels Post for Six Stamps.  
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THE NEW EMOLLIENT SKIN PAINT.  
A harmless, non-poisonous, and unique remedy for SKIN DISEASES.  
A few applications will cure the most inveterate cases. It acts like magic, and is without a rival. In bottles, price 2/6. Write for terms to the Sole Agent—  
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 **INDIARUBBER STAMPS**  
For all purposes and in all styles.  
Self-Inking Stamps, as Illustration, from 2/ each.  
Chemists' Prescription and Dating Stamps of all kinds, Brass Seals for Wax, Stencils, Dies, &c. Price and Pattern Sheets post free.  
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ON FINE SHIRTING, 16 IN. WIDE.  
6s. per Dozen net cash.  
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(DURRANT).  
This is the only real substitute for Mitcham Lavender. 1 lb. 15/, 1/2 lb. 8/, 1/4 lb. 4/3. 1 lb. sent post free, with first-rate formula for Lavender Water, for 15/6.  
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 **SENNE'S PATENT FLESH-BRUSH**  
One of the most valuable recent inventions for the Preservation and Improvement of Health.  
Sells very readily. No Chemist should be without one in stock. Retail Price 10s.  
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Manufactured for the Patentee by  
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Manufacturers of Antiseptic and Absorbent Linths, Cotton Wools, Gauzes, and Roll Bandages.  
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In 40-gallon returnable iron casks, pure tinned, with screw bungs, interchangeable brass taps and spanners for opening. Farina, Dextrin, Glucose, Alcohol absolut., Finsel Oil, Pear Oil, Lime-Soda- Lead- Acetates, Verdigris, Acetic Acid, Wood Naphtha, Charcoal, Ammonia liquid 880-900, anhydrous, Sodium Sulphide Nitrite 96/98 %, Bromides, Iodides, Chloralhydrate, Boracic Acid, Sulphate of Copper, Permanganate of Potash, Ol. Caryophyll., Menth. Pip., Pini, Juniperi.

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THE "PERFECTLY NEUTRAL SOAP." Vide *The Lancet* Analytical Report, July 12, 1890.

ANTISEPTIC, SUPERFATTED, and absolutely NON-IRRITATING to the most delicate skin. Prescribed by the leading Specialists of London, and by a large number of practitioners in all parts of the country. EMOLLIENT in the hardest water. The "Best of All" Skio. Toilet, and Staving Soap. Delicately scented, in Sixpenny tablets. All Wholesale Houses, or of the

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WRITE FOR QUOTATIONS.

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Single Trusses ... ..	15/- per doz.	Elastic Gum Catheters (Best) ...	9/- per doz.
Double " ... ..	30/- "	Catheters à Boule ... ..	15/- "
Watch-spring Pessaries ... ..	17/- "	Indiarubber Catheters ... ..	15/- "
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Hodge's Vulcanite " ... ..	9/- "	Cotton Elastic Stockings ... ..	2/9 each.
" Indiarubber Pessaries ... ..	11/- "	Silk " " " " ... ..	3/9 "
Zwanke's Vulcanite " ... ..	2/9 each.	Clinical Thermometers " " ...	2/4 "
Elastic Gum Catheters ... ..	7/- per doz.		

THESE PRICES ARE FOR CASH WITH ORDER, POSTAGE EXTRA.

All  
Wholesale  
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43  
SNOW HILL,  
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Low Quotations on application. Delivered at London or Liverpool.

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1772.**HENRY'S CALCINED MAGNESIA**

Continues to be prepared with scrupulous care in the greatest chemical purity, by

**Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Manchester,**

And is sold in bottles, authenticated by a Government Stamp bearing their Names. Trade Mark, "Henry's Calcined Magnesia."

Price 4s. 6d., or 2s. 9d.

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EXCLUSIVELY OBTAINED FROM

# "PUMILINE."



THE SNOW-CROWNED PINE

## "PUMILINE" ESSENCE

Is a specially prepared volatile essence, distilled from a particular variety of pine, growing nearest the snow level on the Alps. It possesses exceptional medicinal properties when given internally, or in the form of inhalations, in the treatment of Pulmonary and Diathetic Affections, such as Phthisis, Rheumatism, Gout, &c. It is a valuable deodorizer and disinfectant, and has a peculiarly refreshing and fragrant odour.

## "PUMILINE" JUJUBES

For Sore Throat, Cough, Hoarseness, &c., they give immediate relief.

## "PUMILINE" LINIMENT

Specially beneficial for use in Chronic Rheumatism, Gout, Lumbago, Sciatica, &c. It is also invaluable for Throat and Chest Affections, and may be taken internally, in doses of 2 to 5 drops.

## "PUMILINE" PLASTER

Is most effective in Chronic and Muscular Rheumatism, Lumbago, Sciatica, and also for Chest Affections.

## "PUMILINE" EXTRACT

For Gout, Rheumatism, and Skin Disease; used in BATHS, Ointments, and Liniments.

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For all Skin Affections, Irritations, Insect Bites Burns, &c. This Ointment is a fine smooth homogeneous application. It gives immediate relief in the intolerable itching of Eczema, &c. It is unrivalled both as a medicinal agent and toilet requisite.

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Is a carefully neutralised superfatted Soap, containing no free alkali, and is a Lubricant instead of a Desiccant to the skin. It is peculiarly adapted for use to the delicate skin of ladies and children. It leaves the skin smooth and satiny, and beautifies the complexion. The "Pumiline" Essence which it contains makes it a powerful disinfectant.

## "PUMILINE" DRY INHALER

Most effective and convenient pocket inhaler for use in Throat or Lung Troubles. Is invaluable for use during a fog or mist.

G. & G. STERN have so arranged their Price List that a *very large margin of profit* is left to Chemists and to the Trade generally. In consideration of this, as well as the fact *that no other* Pine Preparations are in any way equal to "PUMILINE," Chemists will find it much to their advantage to stock the "Pumiline" Preparations.

### PRICES—

	RETAIL	WHOLESALE.
"PUMILINE" ESSENCE.....	1/6 and 2/6 per bottle.....	15/ and 24/ per dozen.
"PUMILINE" EXTRACT .....	1/ per bottle.....	9/ per dozen.
"PUMILINE" JUJUBES.....	1/1½ and 2/3 per box .....	10/6 and 20/ per dozen
"PUMILINE" OINTMENT .....	1/1½ and 2/9 per pot.....	11/ and 27/ per dozen.
"PUMILINE" LINIMENT .....	1/1½ and 2/9 per bottle .....	11/ and 27/ per dozen
"PUMILINE" SOAP...(box of 3 cakes)	1/6 and 9d., and 1/ per tablet.....	15/, 7/6, and 9/ per dozen.
"PUMILINE" PLASTER .....	1/1½ each .....	9/ per dozen.
"PUMILINE" DRY INHALER.....	1/6 each.....	14/ per dozen.

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